Stephen S. Intille Curriculum Vitae (October 15, 2025)

Professor
Khoury College of Computer Sciences & Bouvé College of Health Sciences, Dept. of Public Health and Health Sciences (50/50 appointment)
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RESEARCH INTERESTS

Computationally detecting and modeling health-related behavior using interactive systems; combining wearable sensing and user interface systems to support preventive medicine and personal, behavioral health informatics; novel technologies and algorithms for real-time and longitudinal measurement of behavior; persuasive user interfaces for motivating behavior change; sensor-enabled mobile health technologies; context-aware ecological momentary assessment; experimental ubiquitous and mobile computing; active transportation (via bicycle).

EDUCATION HISTORY

Massachusetts Institute of Technology, Cambridge, MA
The Media Laboratory, Ph.D. Media Arts and Sciences (Sep 1999)
Dissertation title: Visual recognition of multi-agent action
Area of specialization: computer vision action recognition and interactive vision systems

Massachusetts Institute of Technology, Cambridge, MA
The Media Laboratory, S.M. in Media Arts and Sciences (Aug 1994)
Thesis title: Tracking using a local closed-world assumption
Area of specialization: computer vision

University of Pennsylvania, Philadelphia, PA
School of Engineering and Applied Sciences, B.S.E. in Computer Science and Engineering, *summa cum laude* (May 1992)

EMPLOYMENT HISTORY

Northeastern University, Boston, MA
Professor (Sep 2023-present)
Khoury College Area Chair for Human Centered Computing Research (Sep 2022-present)
Director of the Personal Health Informatics Doctoral Program (Sep 2011-present)
Associate Professor, Khoury College of Computer Sciences & Dept. of Health Sciences, Bouvé College of Health Sciences (Sep 2010-Au 2024)

MIT Department of Architecture, Cambridge, MA
Visiting Research Scientist, Changing Places Research Group (Sep 2010- Aug 2012)
Research Scientist with PI status, MIT House_n Consortium (Sep 1999 – Aug 2010)

MIT Media Laboratory, Cambridge, MA
Graduate Research Assistant (Advisor: Prof. Aaron Bobick) (Sep 1992 - Aug 1999)

Univ. of Pennsylvania General Robotics and Sensory Perception (GRASP) Laboratory
Undergraduate Research Assistant (Advisor: Prof. Ruzena Bajcsy) (Summer 1991)

RESEARCH ACTIVITY

AWARDS

International Symposium on Wearable Computers (ISWC) Ten-Year Impact Award. Awarded for a paper published in 2007: “Real-time recognition of physical activities and their intensities using wireless accelerometers and a heart rate monitor" (2017).

Ubicomp/Pervasive 10 Year Impact Award. Awarded for each of two papers published in 2004: "Activity Recognition from User-Annotated Acceleration Data" and "Activity Recognition in the Home Using Simple and Ubiquitous Sensors" (2014).

PUBLICATIONS: PEER-REVIEWED ARTICLES IN REFEREED JOURNALS OR CONFERENCES

Publications marked with “Student lead author” were led by a student in my group or on one of my interdisciplinary teams to whom I provided significant mentorship on that work; Publications marked with “Postdoc lead author” were led by a postdoc I was mentoring.

[1] T. Prochnow, W.-L. Wang, S. Wang, R.A.J. Li J., S. Intille, D. Hedeker and G.F. Dunton (2025 (in press)). "Understanding longitudinal ecological momentary assessment completion: Results from 12 months of burst sampling in the TIME study." *JMIR mHealth and Uhealth*.

[2] Y. Cho, S.-M. Chow, J. Li, W.-L. Wang, S. Wang, L. Ji, V. Chinchilli, S. Intille and D. GF (2025 (in-press)). "Understanding within- and between-individual compliance in mHealth: A joint modeling approach to non-random missingness." *JMIR mHealth and Uhealth*.

[3] A. Ponnada, S. Wang, J. Li, W.-L. Wang, G.F. Dunton, D. Hedeker and S.S. Intille (2025). "Longitudinal user engagement with microinteraction ecological momentary assessment (μEMA)." *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 9(3): Article 121. Student lead author.

[4] R. Crosley-Lyons, J. Li, W.L. Wang, S.D. Wang, J. Huh, D. Bae, S.S. Intille and G.F. Dunton (2025). "Exploring person-centred sleep and rest-activity cycle dynamics over 6 months." *J Sleep Res*: e14471.

[5] H. Le, V. Potter, A. Choube, R. Lakshminarayanan, V. Mishra and S. Intille (2025). "A context-assisted, semi-automated activity recall interface allowing uncertainty." *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 9**:** Article 186. Student lead author.

[6] R. Lakshminarayanan, A. Uppal, H. Le, J.C. Spilsbury and S. Intille (2025). "Detecting sleep disruptions in adolescents using context-sensitive ecological momentary assessment: A feasibility study." *Pervasive Computing Technologies for Healthcare*, Springer Nature Switzerland. Student lead author

[7] V. Potter, H. Le, U.H. Syeda, S. Intille and M.A. Borkin (2025). "An evaluation of temporal and categorical uncertainty on timelines: A case study in human activity recall visualizations." *Proc. of IEEE VIS: Visualization & Visual Analytics 2025*. Student lead author.

[8] H. Le, V. Potter, R. Lakshminarayanan, V. Mishra and S. Intille (2025). "Feasibility and utility of multimodal micro ecological momentary assessment on a smartwatch." *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, Association for Computing Machinery**:** Article 1182. Student lead author.

[9] V. Potter, H. Tran, D. Mobley, S.M. Bertisch, D. John and S. Intille (2025). "The Physical Activity Assessment Using Wearable Sensors (PAAWS) Dataset: Labeled laboratory and free-living accelerometer data." *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 9(4, Article 204 (December 2025)). Student lead author.

[10] G.F. Dunton, W.-L. Wang, J. Li, S. Wang, D. Hedeker, S.S. Intille and A.J. Rothman (2025). "Prevalence of physical activity maintenance across a 12-month study: Comparison of accelerometer indicators." *Journal of Physical Activity and Health*: In press.

[11] S. Wang, L. Hatzinger, J. Morales, M. Hewus, S. Intille and G. Dunton (2024). "Burden and inattentive responding in a 12-month intensive longitudinal study: A qualitative analysis." *JMIR Formative Research* 8: e52165.
[12] B. Do, D. Hedeker, W.-L. Wang, T.B. Mason, B.R. Belcher, K.A. Miller, A.J. Rothman, S.S. Intille and G.F. Dunton (2024). "Investigating the day-level associations between affective variability and physical activity using ecological momentary assessment." *Psychology of Sport and Exercise* 70: 102542.
[13] G.F. Dunton, W.-L. Wang, J. Li, D. Hedeker, S.S. Intille and A.J. Rothman (2024). "Developing a framework to evaluate the validity of longitudinal accelerometer-based indicators of physical activity maintenance." *Journal of Physical Activity and Health*: 1-2.
[14] J. Li, A. Ponnada, W.-L. Wang, G. Dunton and S. Intille (2024). "Ask less, learn more: Adapting ecological momentary assessment survey length by modeling question-answer information gain." *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 8(4): Article 166. Student lead author.
[15] H. Le, R. Lakshminarayanan, J. Li, V. Mishra and S. Intille (2024). "Collecting self-reported physical activity and posture data using audio-based ecological momentary assessment." *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 8(3): Article 111. Student lead author.
[16] R.L. Carey, H. Le, D.L. Coffman, I. Nahum-Shani, M. Thirumalai, C. Hagen, L.A. Baehr, M. Schmidt-Read, M.S.R. Lamboy, S.A. Kolakowsky-Hayner, R.J. Marino, S.S. Intille and S.V. Hiremath (2024). "mHealth-based just-in-time adaptive intervention to improve the physical activity levels of individuals with spinal cord injury: Protocol for a randomized controlled trial." *JMIR Research Protocols* 13: e57699.
[17] Z. Yang, X. Xu, B. Yao, E. Rogers, S. Zhang, S. Intille, N. Shara, G.G. Gao and D. Wang (2024). "Talk2Care: An LLM-based voice assistant for communication between healthcare providers and older adults." *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 8(2): Article 73. Distinguished paper award.
[18] J. Hester, H. Le, S. Intille and E. Meier (2023). "A feasibility study on the use of audio-based ecological momentary assessment with persons with aphasia." *ASSETS '23: Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility*, Association for Computing Machinery**:** Article 55. Student lead author.
[19] S.M. Chow, I. Nahum-Shani, J.T. Baker, D. Spruijt-Metz, N.B. Allen, R.P. Auerbach, G.F. Dunton, N.P. Friedman, S.S. Intille, P. Klasnja, B. Marlin, M.K. Nock, S.L. Rauch, M. Pavel, S. Vrieze, D.W. Wetter, E.M. Kleiman, T.R. Brick, H. Perry and D.L. Wolff-Hughes (2023). "The ILHBN: Challenges, opportunities, and solutions from harmonizing data under heterogeneous study designs, target populations, and measurement protocols." *Translational Behavioral Medicine* 13(1): 7-16.
[20] S.K. Keadle, J. Martinez, S.J. Strath, J. Sirard, D. John, S. Intille, D. Arguello, M. Amalbert-Birriel, R. Barnett, B. Thapa-Chhetry, M. Cox, J. Chase, E. Dooley, R. Marcotte, A. Tolas and J.W. Staudemayer (2023). "Evaluation of within- and between-site agreement for direct observation of physical behavior across four research groups." *Journal for the Measurement of Physical Behaviour* 6(3): 176-184.
[21] A. Canori, R. Lakshminarayanan, M. Nunn, M. Schmidt-Read, S.S. Intille and S.V. Hiremath (2023). "Potential of social engagement for overcoming barriers to physical activity in individuals with spinal cord injury." *Journal of Rehabilitation and Assistive Technologies Engineering* 10: 20556683231185755. Student co-lead author.
[22] R. Lakshminarayanan, A. Canori, A. Ponnada, M. Nunn, M. Schmidt-Read, S. Hiremath and S. Intille (2022). "Exploring opportunities to improve physical activity in individuals with

spinal cord injury using context-aware messaging." *Proceedings of the ACM on Human-Computer Interaction* 6(CSCW2): Article 515. Student lead author.

[23] L. Yi, S.D. Wang, D. Chu, A. Ponnada, S.S. Intille and G.F. Dunton (2022). "Examining whether physical activity location choices were associated with weekly physical activity maintenance across 13 months of the COVID-19 pandemic in emerging adults." *Journal of Physical Activity and Health* 19(6): 446-455.

[24] G.F. Dunton, A.M. Leventhal, A.L. Rebar, B. Gardner, S.S. Intille and A.J. Rothman (2022). "Towards consensus in conceptualizing and operationalizing physical activity maintenance." *Psychology of Sport and Exercise*: 102214.

[25] G.F. Dunton, W.-L. Wang, S.S. Intille, E. Dzubur, A. Ponnada and D. Hedeker (2022). "How acute affect dynamics impact longitudinal changes in physical activity among children." *Journal of Behavioral Medicine* 45(3): 451-460.

[26] S. Semborski, B. Henwood, B. Redline, E. Dzubur, T. Mason and S. Intille (2022). "Feasibility and acceptability of ecological momentary assessment with young adults who are currently or were formerly homeless: Mixed methods study." *JMIR Formative Research* 6(3): e33387.

[27] A. Ponnada, J. Li, S. Wang, W.-L. Wang, B. Do, G.F. Dunton and S.S. Intille (2022). "Contextual biases in microinteraction ecological momentary assessment (μEMA) non-response." *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* 6(1): 1–24. Student lead author, Distinguished Paper Award (Top 4% Vol 6) (2023).

[28] B. Thapa-Chhetry, D.J. Arguello, D. John and S. Intille (2022). "Detecting sleep and non-wear in 24-hour wrist accelerometer data from the National Health and Nutrition Examination Survey." *Medicine & Science in Sports & Exercise* 54(11): 1936-1946. Student lead author.

[29] A. Ponnada, S. Wang, D. Chu, B. Do, G. Dunton and S. Intille (2022). "Intensive longitudinal data collection using microinteraction ecological momentary assessment: Pilot and preliminary results." *JMIR Formative Research* 6(2): e32772. Student lead author.

[30] S. Wang, S. Intille, A. Ponnada, B. Do, A. Rothman and G. Dunton (2022). "Investigating microtemporal processes underlying health behavior adoption and maintenance: Protocol for an intensive longitudinal observational study." *JMIR Research Protocols* 11(7): e36666.

[31] C.H. Yang, J.P. Maher, A. Ponnada, E. Dzubur, R. Nordgren, S. Intille, D. Hedeker and G.F. Dunton (2021). "An empirical example of analysis using a two-stage modeling approach: Within-subject association of outdoor context and physical activity predicts future daily physical activity levels." *Translational Behavioral Medicine* 11(4): 912-920.

[32] A. Ponnada, B. Thapa-Chhetry, J. Manjourides and S. Intille (2021). "Measuring criterion validity of microinteraction ecological momentary assessment (Micro-EMA): Exploratory pilot study with physical activity measurement." *JMIR mHealth and Uhealth* 9(3): e23391. Student lead author.

[33] G.F. Dunton, A.J. Rothman, A.M. Leventhal and S.S. Intille (2021). "How intensive longitudinal data can stimulate advances in health behavior maintenance theories and interventions." *Translational Behavioral Medicine* 11(1): 281-286.

[34] D.R. Madden, C. Nok Lam, B. Redline, E. Dzubur, H. Rhoades, S.S. Intille, G.F. Dunton and B. Henwood (2020). "Real-time data collection to examine relations between physical activity and affect in adults with mental illness." *Journal of Sport & Exercise Psychology* 42(5): 386-393.

[35] E. Dzubur, A. Ponnada, R. Nordgren, C.H. Yang, S. Intille, G. Dunton and D. Hedeker (2020). "MixWILD: A program for examining the effects of variance and slope of time-

varying variables in intensive longitudinal data." *Behavior Research Methods* 52(4): 1403-1427. Students lead authors.

[36] Q. Tang, D. John, B. Thapa-Chhetry, D.J. Arguello and S. Intille (2020). "Posture and physical activity detection: Impact of number of sensors and feature type." *Medicine & Science in Sports & Exercise* 52(8): 1834-1845. Student lead author.

[37] A. Canori, A.M. Amiri, B. Thapa-Chhetry, M.A. Finley, M. Schmidt-Read, M.R. Lamboy, S.S. Intille and S.V. Hiremath (2020). "Relationship between pain, fatigue, and physical activity levels during a technology-based physical activity intervention." *The Journal of Spinal Cord Medicine* 44(4): 549-556. Student lead author.

[38] B.F. Henwood, B. Redline, E. Dzubur, D.R. Madden, H. Rhoades, G.F. Dunton, E. Rice, S. Semborski, Q. Tang and S.S. Intille (2019). "Investigating health risk environments in housing programs for young adults: Protocol for a geographically explicit ecological momentary assessment study." *JMIR Research Protocols* 8(1): e12112.

[39] A. Ponnada, S. Cooper, B. Thapa-Chhetry, J.A. Miller, D. John and S. Intille (2019). "Designing videogames to crowdsource accelerometer data annotation for activity recognition research." *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*, ACM**:** 135-147. Student lead author.

[40] S.V. Hiremath, A.M. Amiri, B. Thapa-Chhetry, G. Snethen, M. Schmidt-Read, M. Ramos-Lamboy, D.L. Coffman and S.S. Intille (2019). "Mobile health-based physical activity intervention for individuals with spinal cord injury in the community: A pilot study." *PLoS ONE* 14(10): e0223762.

[41] D. John, Q. Tang, F. Albinali and S. Intille (2019). "An open-source monitor-independent movement summary for accelerometer data processing." *Journal for the Measurement of Physical Behaviour* 2(4): 268-281.

[42] A. Mannini and S. Intille (2018). "Classifier personalization for activity recognition using wrist accelerometers." *IEEE Journal of Biomedical and Health Informatics* 23(4): 1585-1594. Student lead author.

[43] D. Spruijt-Metz, C.K.F. Wen, B.M. Bell, S. Intille, J.S. Huang and T. Baranowski (2018). "Advances and controversies in diet and physical activity measurement in youth." *American Journal of Preventative Medicine* 55(4): e81-e91.

[44] G.F. Dunton, A.M. Leventhal, A.J. Rothman and S.S. Intille (2018). "Affective response during physical activity: Within-subject differences across phases of behavior change." *Health Psychology* 37(10): 915-923.

[45] P.-H. Lin, S. Grambow, S. Intille, J. Gallis, T. Lazenka, H. Bosworth, C. Voils, G. Bennett, B. Batch, J. Allen, L. Corsino, C. Tyson and L. Svetkey (2018). "The association between engagement and weight loss through personal coaching and cell phone interventions in young adults: Randomized controlled trial." *JMIR mHealth and Uhealth* 6(10): e10471.

[46] J.P. Maher, J. Huh, S. Intille, D. Hedeker and G.F. Dunton (2018). "Greater variability in daily physical activity is associated with poorer mental health profiles among obese adults." *Mental Health and Physical Activity* 14: 74-81.

[47] R.A. Millstein, N.M. Oreskovic, L.M. Quintiliani, P. James and S. Intille (2018). "The need for local, multidisciplinary collaborations to promote advances in physical activity research and policy change: The creation of the Boston Physical Activity Resource Collaborative (BPARC)." *Journal of Physical Activity Research* 3(2): 74-77.

[48] E. Dzubur, J. Huh, J.P. Maher, S.S. Intille and G.F. Dunton (2018). "Response patterns and intra-dyadic factors related to compliance with ecological momentary assessment among mothers and children." *Translational Behavioral Medicine* 8(2): 233-242.

[49] D. Arguello, K. Andersen, A. Morton, P.S. Freedson, S.S. Intille and D. John (2018). "Validity of proximity sensor-based wear-time detection using the ActiGraph GT9X." *Journal of Sports Sciences* 36(13): 1502-1507. Student lead author.
[50] M. Jones, A. Taylor, Y. Liao, S.S. Intille and G.F. Dunton (2017). "Real-time subjective assessment of psychological stress: Associations with objectively-measured physical activity levels." *Psychology of Sport and Exercise* 31: 79-87.
[51] J.P. Maher, R.E. Rhodes, E. Dzubur, J. Huh, S. Intille and G.F. Dunton (2017). "Momentary assessment of physical activity intention-behavior coupling in adults." *Translational Behavioral Medicine* 7(4): 709-718.
[52] A. Mannini, M. Rosenberger, W.L. Haskell, A.M. Sabatini and S.S. Intille (2017). "Activity recognition in youth using single accelerometer placed at wrist or ankle." *Medicine & Science in Sports & Exercise* 49(4): 801-812. Student lead author.
[53] J.C. Spilsbury, S.R. Patel, N. Morris, A. Ehyaei and S.S. Intille (2017). "Household chaos and sleep-disturbing behavior of family members: Results of a pilot study of African American early adolescents." *Sleep Health* 3(2): 84-89.
[54] A. Ponnada, C. Haynes, D. Maniar, J. Manjourides and S. Intille (2017). "Microinteraction ecological momentary assessment response rates: Effect of microinteractions or the smartwatch?" *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* 1(3): 1-16. Student lead author.
[55] J.P. Maher, E. Dzubur, J. Huh, S. Intille and G.F. Dunton (2016). "Within-day time-varying associations between behavioral cognitions and physical activity in adults." *Journal of Sport & Exercise Psychology* 38(4): 423-434.
[56] R.F. Rodgers, W. Pernal, A. Matsumoto, M. Shiyko, S. Intille and D.L. Franko (2016). "Capitalizing on mobile technology to support healthy eating in ethnic minority college students." *Journal of American College Health* 64(2): 125-132.
[57] S.V. Hiremath, S.S. Intille, A. Kelleher, R.A. Cooper and D. Ding (2016). "Estimation of energy expenditure for wheelchair users using a physical activity monitoring system." *Archives of Physical Medicine and Rehabilitation* 97(7): 1146-1153.
[58] G.F. Dunton, E. Dzubur and S.S. Intille (2016). "Feasibility and performance test of a real-time sensor-informed context-sensitive ecological momentary assessment to capture physical activity." *Journal of Medical Internet Research* 18(6): e106.
[59] S. Intille, C. Haynes, D. Maniar, A. Ponnada and J. Manjourides (2016). "µEMA: Microinteraction-based ecological momentary assessment (EMA) using a smartwatch." *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '16)*, Association for Computing Machinery, New York, NY, United States.
[60] G. Dunton, E. Dzubur, M. Li, J. Huh, S. Intille and R. McConnell (2015). "Momentary assessment of psychosocial stressors, context, and asthma symptoms in Hispanic adolescents." *Behavior Modification* 40(1-2): 257-280.
[61] P.H. Lin, S. Intille, G. Bennett, H.B. Bosworth, L. Corsino, C. Voils, S. Grambow, T. Lazenka, B.C. Batch, C. Tyson and L.P. Svetkey (2015). "Adaptive intervention design in mobile health: Intervention design and development in the Cell Phone Intervention for You trial." *Clinical Trials* 12(6): 634-645.
[62] R.F. Rodgers, D.L. Franko, M. Shiyko, S. Intille, K. Wilson, D. O'Carroll, M. Lovering, A. Matsumoto, A. Iannuccilli, S. Luk and H. Shoemaker (2015). "Exploring healthy eating among ethnic minority students using mobile technology: Feasibility and adherence." *Health Informatics Journal* 22(3): 440-450.

[63] S.V. Hiremath, S.S. Intille, A. Kelleher, R.A. Cooper and D. Ding (2015). "Detection of physical activities using a physical activity monitor system for wheelchair users." *Medical Engineering & Physics* 37(1): 68-76.
[64] G.F. Dunton, Y. Liao, S. Intille, J. Huh and A. Leventhal (2015). "Momentary assessment of contextual influences on affective response during physical activity." *Health Psychology* 34(12): 1145-53.
[65] T.A. Pickering, J. Huh, S. Intille, Y. Liao, M.A. Pentz and G.F. Dunton (2015). "Physical activity and variation in momentary behavioral cognitions: An ecological momentary assessment study." *Journal of Physical Activity and Health* 13(3): 344-51.
[66] A. Mannini, A.M. Sabatini and S.S. Intille (2015). "Accelerometry-based recognition of the placement sites of a wearable sensor." *Pervasive and Mobile Computing* 21: 62-74. Student lead author.
[67] E. Dzubur, M. Li, K. Kawabata, Y. Sun, R. McConnell, S. Intille and G.F. Dunton (2015). "Design of a smartphone application to monitor stress, asthma symptoms, and asthma inhaler use." *Annals of Allergy, Asthma & Immunology* 114(4): 341-342 e2. Student lead author.
[68] D. Spruijt-Metz, E. Hekler, N. Saranummi, S. Intille, I. Korhonen, W. Nilsen, D. Rivera, B. Spring, S. Michie, D. Asch, A. Sanna, V. Salcedo, R. Kukakfa and M. Pavel (2015). "Building new computational models to support health behavior change and maintenance: New opportunities in behavioral research." *Translational Behavioral Medicine* 5(3): 335-46.
[69] L.P. Svetkey, B.C. Batch, P.-H. Lin, S.S. Intille, L. Corsino, C.C. Tyson, H.B. Bosworth, S.C. Grambow, C. Voils, C. Loria, J.A. Gallis, J. Schwager and G.B. Bennett (2015). "Cell phone Intervention for You (CITY): A randomized, controlled trial of behavioral weight loss intervention for young adults using mobile technology." *Obesity*(23): 2133-2141.
[70] T. Bickmore, R. Asadi, A. Ehyaei, H. Fell, L. Henault, S. Intille, L. Quintiliani, A. Shamekhi, H. Trinh, K. Waite, C. Shanahan and M. Paasche-Orlow (2015). "Context-awareness in a persistent hospital companion agent." *Proceedings of the Fifteenth International Conference on Intelligent Virtual Agents (IVA 2015)*, Springer-Verlag**:** 332-342.
[71] G.F. Dunton, Y. Liao, E. Dzubur, A.M. Leventhal, J. Huh, T. Gruenewald, G. Margolin, C. Koprowski, E. Tate and S. Intille (2015). "Investigating within-day and longitudinal effects of maternal stress on children's physical activity, dietary intake, and body composition: Protocol for the MATCH study." *Contemporary Clinical Trials* 43: 142-154.
[72] Y. Liao, S. Intille, J. Wolch, M.A. Pentz and G.F. Dunton (2014). "Understanding the physical and social contexts of children's nonschool sedentary behavior: An ecological momentary assessment study." *Journal of Physical Activity and Health* 11(3): 588-95.
[73] B.C. Batch, C. Tyson, J. Bagwell, L. Corsino, S. Intille, P.H. Lin, T. Lazenka, G. Bennett, H.B. Bosworth, C. Voils, S. Grambow, A. Sutton, R. Bordogna, M. Pangborn, J. Schwager, K. Pilewski, C. Caccia, J. Burroughs and L.P. Svetkey (2014). "Weight loss intervention for young adults using mobile technology: design and rationale of a randomized controlled trial - Cell Phone Intervention for You (CITY)." *Contemporary Clinical Trials* 37(2): 333-41.
[74] M.S. Goodwin, M. Haghighi, Q. Tang, M. Akcakaya, D. Erdogmus and S. Intille (2014). "Moving towards a real-time system for automatically recognizing stereotypical motor movements in individuals on the autism spectrum using wireless accelerometry." *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, ACM**:** 861-872.
[75] G.F. Dunton, E. Dzubur, K. Kawabata, B. Yanez, B. Bo and S. Intille (2014). "Development of a smartphone application to measure physical activity using sensor-assisted self-report." *Frontiers in Public Health* 2(12): 1-13.

[76] Q. Tang, D.J. Vidrine, E. Crowder and S.S. Intille (2014). "Automated detection of puffing and smoking with wrist accelerometers." *8th International Conference on Pervasive Computing Technologies for Healthcare*, ICST (Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering)**:** 80-87. Student lead author.
[77] Y. Liao, S.S. Intille and G.F. Dunton (2014). "Using ecological momentary assessment to understand where and with whom adults' physical and sedentary activity occur." *International Journal of Behavioral Medicine* 22(1): 51-61.
[78] A. Mannini, S.S. Intille, M. Rosenberger, A.M. Sabatini and W. Haskell (2013). "Activity recognition using a single accelerometer placed at the wrist or ankle." *Medicine & Science in Sports & Exercise* 45(11): 2193-203. Student lead author.
[79] M.E. Rosenberger, W.L. Haskell, F. Albinali, S. Mota, J. Nawyn and S. Intille (2013). "Estimating activity and sedentary behavior from an accelerometer on the hip or wrist." *Medicine & Science in Sports & Exercise* 45(5): 964-75. Student lead author.
[80] L. Corsino, P.H. Lin, B.C. Batch, S. Intille, S.C. Grambow, H.B. Bosworth, G.G. Bennett, C. Tyson, L.P. Svetkey and C.I. Voils (2013). "Recruiting young adults into a weight loss trial: report of protocol development and recruitment results." *Contemporary Clinical Trials* 35(2): 1-7.
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PUBLICATIONS: PEER-REVIEWED WORKSHOPS

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[1] D. John and S. Intille (2017). "Assessing sedentary behavior using new technology." *Sedentary Behavior and Health: Concepts, Assessments, and Interventions*. W. Zhu and N. Owen (Ed). Champaign, IL, Human Kinetics**:** 197-208.
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PUBLICATIONS: PEER-REVIEWED ABSTRACTS/ PRESENTATIONS

[1] E. Meier, J. Hester, H. Le, S. Jennings, H.-D. Phan, L. Ugent and S. Intille (2025). "Feasibility and preliminary clinical utility of a novel ecological momentary naming protocol for post-stroke aphasia " *American Speech-Language-Hearing Association (AHSA) 2025 Convention*, Washington, DC.
[2] T. Prochnow, W.-L. Wang, S. Wang, J. Li, S. Intille, D. Hedeker and G. Dunton (2024). "Understanding ecological momentary assessment compliance in a 12- month multi-measurement burst sampling design in the TIME study." *2024 International Society of Behavioral Nutrition and Physical Activity Meeting*, Omaha, NE.
[3] E. Meier, J. Hester, H. Le, N. Mitchell, H.-D. Phan, L. Ugent and S. Intille (2024). "Word retrieval in the wild: Feasibility of ecological momentary assessment of naming in people with post-stroke aphasia and healthy adults." *Clinical Aphasiology Conference*, Hawaii, USA.
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[5] B. Do, D. Hedeker, W.L. Wang, T.B. Mason, B.R. Belcher, K. Miller, A.J. Rothman, S.S. Intille and G.F. Dunton (2023). "Investigating day-level associations of affective variability with physical activity using ecological momentary assessment." *44th Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine*, Phoenix, AZ.
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[11] S. Wang, E. Dzubur, B. Do, D. Hedeker, S.S. Intille and G.F. Dunton (2021). "The effects of sampling density on variance of affect in ecological momentary assessment protocols." *Society for Ambulatory Assessment Conference*, Zurich, Switzerland.

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[15] E. Dzubur, S. Wang, T. Mason, B. Do, D. Hedeker, S. Intille and G.F. Dunton (2020). "The effect of temporally-dense sampling on variance of affect in ecological momentary assessment protocols." *41st Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine*, Online.

[16] S.D. Wang, S.S. Intille, A.P. Ponnada and G. Dunton (2020). "Engagement in the Temporal Influences on Movement and Exercise (TIME) Study Pilot." *41st Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine*, Online.

[17] G.F. Dunton, S.D. Wang, A. Ponnada, R. Campo, S.-M. Chow and S. Intille (2020). "Innovative ecological momentary assessment strategies to capture micro-temporal processes underlying long-term changes in physical activity, sedentary behavior, and sleep." *Annals of Behavioral Medicine*, Oxford University Press. 54**:** S146.

[18] S. Intille, D. John, R. Troiano, Q. Tang and B. Thapa Chhetry (2019). "Processing terabytes of NHANES and NNYFS wrist accelerometer data for publc access." *2019 Annual Meeting of hte American College of Sports Medicine (ACSM)*, Orlando, FL, USA.

[19] G.F. Dunton, A.J. Rothman, D. Hedeker, A.M. Leventhal and S.S. Intille (2019). "Using intensive longitudinal data to develop predictive models of physical activity, sedentary time, and sleep: The microT Study." *Society of Behavioral Medicine 2019 Annual Meeting*, Washington, DC, USA.

[20] M. Kos, A. Ponnada, M. Pavel and S. Intille (2019). "Evidence that microinteraction ecological momentary assessment (μEMA) is a non-reactive in-situ affect assessment method." *2019 Society for Affective Science (SAS) Annual Conference*, Boston, MA, USA. Student lead author

[21] R.P. Troiano, D. John and S.S. Intille (2018). "NHANES and NNYFS wrist accelerometer data: Processing terabytes of data for public access." *International Society for Physical Activity and Health Annual Conference*, London, England.

[22] N. Shoaib, A.M. Amiri, B.T. Chhetry, G. Snethen, M. Schmidt-Read, M.R. Lamboy, S.S. Intille and S.V. Hiremath (2018). "Improving physical activity levels of individuals with spinal cord injury in the community." *Rehabilitation Engineering and Assistive Technology Society of North America's Annual Conference*, Washington, DC, USA.

[23] R. Troiano, S. Intille, D. John, B. Thapa-Chhetry and Q. Tang (2018). "NHANES and NNYFS wrist accelerometer data: Processing 7TB of data for public access." *Journal of Physical Activity and Health* 15(10): S19-S19.
[24] E. Dzubur, S. Intille and G.F. Dunton (2018). "Reactivity to a longitudinal smartphone-based time-intensive physical activity assessment." *39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine (SBM)*, New Orleans, LA, USA.
[25] B. Redline, H. Rhoades, S. Intille, G.F. Dunton and B. Henwood (2017). "Feasibility of using ecological momentary assessment to understand risk environment of homeless and recently-housed young adults." *American Public Health Association*, Atlanta, GA, USA.
[26] S.S. Intille, A. Lu, T. Baranowski, J.Y. Hwuang and E. Dzubur (2017). "Research symposium session in ICAMPAM Symposia on Technology-Assisted Physical Activity Measurement Among Children: Attractions and Pitfalls." *ICAMPAM 2017: The 5th International Conference on Ambulatory Monitoring of Physical Activity and Movement*, Bethesda, MD, USA.
[27] G.F. Dunton, W. Ke, E. Dzubur, A. Leventhal, J. Huh, G. Margolin and S. Intille (2017). "Maternal stress and weight-related parenting practices: An Ecological Momentary Assessment study." *Society of Behavioral Medicine Annual Meeting*, San Diego, CA, USA.
[28] S.V. Hiremath, S.S. Intille, A. Kelleher, R.A. Cooper and D. Ding (2016). "Physical activity monitor system to quantify wheelchair-based activities in individuals with spinal cord injury." *Conference on Rehabilitation Research at NIH: Moving the Field Forward*, Bethesda, MD, USA.
[29] E. Dzubur, J. Huh, S. Intille and G.F. Dunton (2016). "Affective and behavioral predictors of compliance to ecological momentary assessment protocols in physical activity studies." *37th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine*, Washington, DC, USA.
[30] G.F. Dunton, E. Dzubur, Y. Liao, A.M. Leventhal, J. Huh, G. Margolin, T. Gruenewald, C. Koprowski and S. Intille (2015). "Using ecological momentary assessment to examine the association between maternal stress and children's body composition." *The Obesity Society Annual Meeting*, Los Angeles, CA, USA.
[31] G.F. Dunton, E. Dzubur and S. Intille (2015). "A smartphone application to measure physical activity using sensor-informed context-sensitive ecological momentary assessment." *Society for Ambulatory Assessment Conference*.
[32] G.F. Dunton, E. Dzubur, A. Leventhal, J. Huh, G. Margolin, T. Gruenewald, C. Koprowski and S. Intille (2015). "Momentary assessment of within-day effects of maternal stress on children's eating and activity." *36th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine*.
[33] S. Hiremath, S. Intille, R. Cooper and D. Ding (2014). "Quantifying energy expenditure of wheelchair-based physical activities in free-living environments." *Proceedings of Wireless Health 2014*, ACM.
[34] G.F. Dunton, E. Dzubur, S. Intille, R. McConnell and M. Li (2014). "Stress and physical activity in children with asthma: An Ecological Momentary Assessment study." *The International Society for Behavioral Medicine and Physical Activity Conference*, San Diego, CA, USA.
[35] Y. Liao, S. Intille and G.F. Dunton (2014). "Environment moderates the relationship between momentary affective and physical feeling states and physical activity." *11th Active Living Research Conference*, San Diego, CA, USA.
[36] G.F. Dunton, E. Dzubur, K. Kawabata, B. Bo and S. Intille (2014). "Development of a smartphone application to measure physical activity using sensor-driven context-sensitive

ecological momentary assessment." *35th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine*, Philadelphia, PA, USA.

[37] G.F. Dunton, E. Dzubur, K. Kawabata, B. Bo and S. Intille (2014). "Development of a smartphone application to measure physical activity using sensor-informed end of day recall." *35th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine*, Philadelphia, PA, USA.

[38] G.F. Dunton, A. Leventhal, Y. Liao and S. Intille (2013). "Affective response to physical activity differs across contexts: An Ecological Momentary Assessment study." *American Public Health Association Annual Meeting*, Boston, MA, USA.

[39] S. Intille (2013). "Combining passive mobile sensing and context-sensitive self-report for activity assessment in intervention studies (in the Advancing Objective Assessment of Physical Activity and Sedentary Behavior Symposium; Organizers: Freedson, Staudenmayer, Lyden, and Intille)." *American College of Sports Medicine Annual Meeting*, Indianapolis, IN, USA.

[40] M. Rosenberger, W.L. Haskell and S. Intille (2013). "A comparison of seven body locations for measuring sedentary behavior and physical activity with accelerometers." *American College of Sports Medicine Annual Meeting* Indianapolis, IN, USA.

[41] T.A. Pickering, J. Huh, S. Intille and G. Dunton (2013). "Relationships between physical activity and the mean and variability in repeatedly-measured behavioral cognition variables." *Society of Behavioral Medicine Annual Meeting*, San Francisco, CA, USA.

[42] Y. Liao, J. Huh, S. Intille and G.F. Dunton (2013). "Short-term relationships of affective and physical feeling states with physical activity level in naturalistic settings." *Society of Behavioral Medicine Annual Meeting*, San Francisco, CA, USA.

[43] G. Dunton, J. Huh, Y. Liao, E. Tate and S. Intille (2013). "Using Ecological Momentary Assessment to examine the interrelations of affective states and physical activity (in a symposium on Advancements in Ecological Momentary Assessment (EMA) Methods for Health Behavior Research)." *Society of Behavioral Medicine Annual Meeting*, San Francisco, CA, USA.

[44] Y. Liao, S. Intille and G.F. Dunton (2013). "Using ecological momentary assessment to understand where and with whom adults' sedentary and physical activity occurs." *10th Active Living Research Annual Conference*, San Diego, CA, USA.

[45] S.S. Intille, W. Nilsen, D. Spruijt-Metz, I. Korhonen and M. Pavel (2013). "Research Symposium Session: Using New Technologies and Modeling Techniques to Understand Health Behavior, Behavior Change, and Maintenance: Findings from an International Workshop." *mHealth Summit*, Washington, DC, USA.

[46] G.F. Dunton, R. McConnell, M. Jerrett and S. Intille (2013). "Using context-sensitive ecological momentary assessment to Investigate the effects of the environment, stress and physical activity on asthma symptoms (in symposium on Moving Through Space and Time: Using Technology To Improve 'On-the-ground' Assessment and Communication About Health)." *Society of Behavioral Medicine Annual Meeting*, San Francisco, CA, USA.

[47] G.F. Dunton, Y. Liao, S. Intille, D. Spruijt-Metz and M. Pentz (2012). "Assessing adults' physical activity and sedentary behavior using ecological momentary assessment with mobile phones." *APHA American Public Health Association Annual Meeting*, San Francisco, CA, USA.

[48] Y. Liao, J. Huh, D. Spruijt-Metz, S. Intille, M.A. Pentz and G. Dunton (2012). "Examining the immediate effects of intention and self-efficacy on physical activity among adults: An ecological momentary assessment study." *APHA American Public Health Association Annual Meeting*, San Francisco, CA, USA.

[49] M.E. Rosenberger, W.L. Haskell, F. Albinali, S. Mota, J. Nawyn and S. Intille (2012). "Estimating energy expenditure from accelerometry and physiological sensors in one device." *American College of Sports Medicine (ACSM) National Conference*, San Francisco, CA, USA.

[50] M. Rosenberger, W. Haskell, F. Abinali, S. Mota, J. Nawyn and S. Intille (2012). "A comparison of accelerometer estimates of energy expenditure on the wrist and hip in adults." *American Heart Association EPI/NPAM Conference*, San Diego, CA, USA.

[51] C. Younan, Y. Liao, K. Kawabata, D. Spruijt-Metz, S. Intille, M. Pentz and G. Dunton (2012). "Using ecological momentary assessment to examine perceptions of safety, aesthetics and physical activity in adults." *Active Living Research (ALR) Annual Conference*, San Diego, CA, USA.

[52] S. Intille, T. Lazenka, K. Bechtel, F. Albinali, S. Mota, B. Kuris, P. Botana and W.L. Haskell (2012). "Developing context-sensitive ecological momentary assessment on mobile phones: Examples/lessons from pilot projects (in Using Real-Time Mobile Phone Technologies in Physical Activity and Eating Behavior Research Symposium)." *Society of Behavioral Medicine Annual Meeting*, New Orleans, LA, USA.

[53] M. Rosenberger, W.L. Haskell, F. Albinali and S.S. Intille (2011). "Device measuring heart rate, respiration rate, and motion accurately estimates activity level and energy expenditure." *Medicine & Science in Sports & Exercise* 43(Suppl 1): 63.

[54] M. Rosenberger, W. Haskell, P. Quatromoni, F. Abinali and S. Intille (2011). "Objective measurement of sedentary behavior with accelerometers." *American Heart Association EPI/NPAM Conference*, Atlanta, GA, USA.

[55] L. Corsino, B.C. Batch, G. Bennett, H. Bosworth, L. Corsino, S. Grambow, S. Intille, P.-H. Lin, C. Simpson, C. Voils and L. Svetkey (2011). "Cell Phone Intervention for You (CITY): Randomized trial of behavioral interventions for weight loss in young adults (in the Early Adult Reduction of Weight through Lifestyle Intervention (EARLY) Trials; Using Innovative Technologies in Randomized Controlled Trials Targeting Weight Control Among Young Adults Symposium)." *Society of Behavioral Medicine Annual Meeting*, Washington, DC, USA.

[56] S. Intille, F. Albinali, S. Mota, A.D. Nguyen, Y. Han and W.L. Haskell (2011). "Sensor-driven automatic feedback on mobile devices for improving behavioral measurement and intervention: Design experiences from two pilot projects (in Advances in Information Technology for Increasing Dissemination Symposium)." *Society of Behavioral Medicine Annual Meeting*, Washington, DC, USA.

[57] G.F. Dunton, Y. Liao, S. Intille, D. Spruijt-Metz, J. Wolch and M. Pentz (2010). "Investigating children's physical activity and sedentary behavior using ecological momentary assessment with mobile phones." *Loma Linda University School of Public Health Healthy People 2010 Conference*, Loma Linda, CA, USA.

[58] J. Higa, G.F. Dunton, S. Intille, J. Beaudin, J. Wolch and M.A. Pentz (2010). "The contexts of children's sedentary activities: Where, with whom, and how do they feel?" *Active Living Research Annual Conference*, San Diego, CA, USA.

[59] G.F. Dunton, S. Intille, J. Beaudin, J. Wolch and M. Pentz (2010). "Investigating the impact of a smart growth community on children's physical activity contexts using ecological momentary assessment." *Society of Behavioral Medicine*, Seattle, WA, USA.

[60] G.F. Dunton, S. Intille, J. Beaudin, K. Kawabata, J. Wolch and M. Pentz (2010). "Measuring the social and physical contexts of children's physical activity using ecological momentary assessment." *Active Living Research Annual Conference*, San Diego, CA, USA.

[61] G.F. Dunton, S. Intille, J. Beaudin, A. Tantoushian, J. Wolch and M. Pentz (2010). "Social and physical contextual influences on children's physical activity levels: An ecological

momentary assessment study." *Active Living Research Annual Conference*, San Diego, CA, USA.

[62] G.F. Dunton, S. Intille, J. Beaudin and M.A. Pentz (2009). "Pilot test of a real-time data capture protocol to assess children's exposure to and experience of physical activity contexts using mobile phones." *Annual Scientific Meeting of The Obesity Society*, Washington, DC, USA.

[63] M. Rosenberger, G. Skrinar, W. Haskell, S. Intille and E. Munguai Tapia (2008). "Multiple wireless accelerometers and heart rate accurately predict energy expenditure during level walking." *American College of Sports Medicine (ACSM) National Conference*, Indianapolis, IN, USA.

[64] T. Bickmore, A. Gruber and S. Intille (2008). "Just-in-time automated counseling for physical activity promotion." *American Medical Informatics Association (AMIA) Annual Symposium*, Washington, DC, USA.

[65] S.S.I. Intille (2007). "Cognition for healthy people: Some challenges." *Proceedings of the Assisted Cognition Workshop*, Rochester, New York.

[66] S. Intille, J. Herigon, W. Haskell, A. King, J.A. Wright and R.F. Friedman (2006). "Intensity levels of occupational activities related to hotel housekeeping in a sample of minority women." *Annual Meeting of the International Society of Behavioral Nutrition and Physical Activity*, Boston, MA, USA.

[67] S.S. Intille (2005). "Context-aware technology for studying everyday behavior in natural settings (in Symposium on Leaving the Lab: Telemetric Monitoring for Behavioral Medicine)." *Society of Behavioral Medicine Annual Meeting*, Boston, MA, USA.

[68] S.S. Intille (2004). "New technology for studying everyday behavior in natural settings (in Symposium on Real World Psychology: Exploring People's Everyday Lives)." *Society for Personality and Social Psychology Annual Meeting*, Austin, TX, USA.

[69] S.S. Intille, E. Munguia Tapia and L. Bao (2004). "Real-time physical activity recognition using multiple wireless accelerometers." *Scientific Meeting on Objective Monitoring of Physical Activity: Closing Gaps in the Science of Accelerometry*, University of North Carolina, NC, USA. Best poster award

[70] S.S. Intille, C. Kukla, R. Farzanfar and W. Bakr (2003). "Just-in-time technology to encourage incremental, dietary behavior change." *Proceedings of the American Medical Informatics Association (AMIA) 2003 Symposium*, Wiley**:** 874.

PUBLICATIONS: OTHER (TUTORIAL PRESENTATIONS AT REFEREED CONFERENCES)

W.J. Nilsen, S. Intille, D. Spruijt-Metz and M. Pavel (2014). "Modeling a mobile world." *2014 Int. Conf. on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP14),* Washington, DC, USA.

PUBLICATIONS: OTHER (DEMO PRESENTATIONS AT REFEREED CONFERENCES)

S. Hiremath and S. Intille (2018). "mHealth physical activity intervention system for individuals with disability: Physical Activity Intervention System (PAIS) (in Featured mHealth Technology Session)." *mHealth Technology Showcase,* Washington, DC, USA.

J.S. Beaudin, S.S. Intille and M. Morris (2006). "MicroLearning on a mobile device." *UbiComp 2006 (Demo Program),* Orange County, CA, USA. Student lead author.

E. Munguia Tapia, N. Marmasse, S.S. Intille and K. Larson (2004). "MITes: Wireless portable sensors for studying behavior (Demo)." *Demo Session of Ubicomp 2004: Ubiquitous Computing*. Student lead author.

PUBLICATIONS: OTHER (VIDEO PRESENTATIONS AT REFEREED CONFERENCES)

J. Nawyn, S.S. Intille and K. Larson (2006). "Embedding behavior modification strategies into a consumer electronics device (Video)." *UbiComp 2006 Video Program,* Orange County, CA, USA. Student lead author.

S.S. Intille, K. Larson, J.S. Beaudin, E. Munguia Tapia, P. Kaushik, J. Nawyn and T.J. McLeish (2005). "The PlaceLab: A live-in laboratory for pervasive computing research (Video)." *PERVASIVE 2005 Video Program,* Munich, Germany.

E. Munguia Tapia, S. Intille, J. Rebula and S. Stoddard (2003). "Ubiquitous video communication with the perception of eye contact (Video)." *UBICOMP 2003 Video Program,* Seattle, WA, USA. Student lead author.

S.S. Intille and V. Lee (2003). "The language learning tool: An example of a ubiquitous, persistent, user interface (Video)." *UBICOMP 2003 Video Program,* Seattle, WA, USA.

PUBLICATIONS: OTHER (DISSERTATION)

S.S. Intille (1999). Visual Recognition of Multi-Agent Action. Ph.D. thesis, Media Laboratory, Massachusetts Institute of Technology. Committee: Aaron Bobick (MIT Media Lab, USA), Eric Grimson (MIT AI Lab, USA), Hans-Hellmut Nagel (University of Karlsruhe, Germany)

PUBLICATIONS: OTHER (UNPUBLISHED)

B. Yao, M. Zhao, Y. Sun, W. Cao, C. Yin, S. Intille, X. Xu, P. Zhang, J. Yang and D. Wang (2025). "More modality, more AI: Exploring design opportunities of AI-based multi-modal remote monitoring technologies for early detection of mental health sequelae in youth concussion patients." *https://arxiv.org/abs/2502.03732*.

S.S. Intille and A.M. Intille (2003). "New challenges for privacy law: Wearable computers that create electronic digital diaries." Cambridge, MA, Massachusetts Institute of Technology. MIT Dept. of Architecture House_n Project Technical Report.

FUNDED GRANTS (EXTERNAL)

For each grant, I have listed: my role (other PI or co-PIs, or Co-Is at NU) [the funder], title, years funded (not including no-cost extensions), amount received by or initially awarded to NU or MIT, my share of the award at the institution, and a short description of the grant goals. The Northeastern financial data is from the EPAWS database.

Co-I (PI: Meier) [Northeastern] "**Cued Picture Naming Ecological Momentary Intervention for Post-Stroke Aphasia,**" 2025-27 (2 yr), $275,000 (50%). Demonstrate that a novel technology platform delivering high-dose language therapy throughout daily life can effectively complement clinician-delivered therapy, addressing treatment dose and delivery challenges to improve language outcomes for individuals with aphasia.

Co-I (PI: Yang, NU PI: Wang) [Nationwide Children's Hospital] "**MindGuard: Early Prediction of Post-Concussion Mental Health Sequelae in Youth with a Multimodal AI System,**" 2025-30 (5 yr), $908,644 (~10%). Create an LLM-based conversational system that can collect youth concussion patients' self-reported symptoms at home.

NU PI (PI: Hedeker) [U. Chicago] "**Novel Statistical Models for Intensive Longitudinal Analyses of Cancer Control Behaviors,**" 2024-29 (5 yr), $573,762 (100%). Make extensions to multilevel models for estimating subject-level effects of time-varying variables and enhance the usability, utility, and dissemination of the MixWild software and user interface.

NU PI (PI: Whalen) [Washington Univ.] "**Sensitivity and Puberty in Mental Health Vulnerability to Social Media Experiences in Early Adolescent Girls,**" 2024-29 (5 yr), $831,110 (100%). Examine bidirectional relations between preteen girl's mental health and social

media experiences, where social media interaction and aspects of behavior (physical activity, sedentary behavior, and sleep) are measured using µEMA (microEMA) technology on smartwatches and mobile phones.

Co-I (PI: Selter) [Tufts] "**Tufts Clinical and Translational Science Institute,**" 2023-30 (7 yr), $883,903 (~12%). Serve on the Tufts CTSI Informatics advisory group for the Tufts Analytics Platform project, providing strategic guidance to the developers.

PI (co-PI: Dunton (USC)) [NIH U01HL146327-04S2] "**Microtemporal Processes Underlying Health Behavior Adoption and Maintenance – Administrative Supplement,**" 2022-23 (1 yr), $30k (100%). Make contributions to Intensive Longitudinal Health Behavior Network (ILHBN) cross-study projects by (1) sharing relevant data collected through the TIME study, and (2) leading the effort on a cross-network project to investigate reliability and variance in affect data.

Co-I (PI: Meier) [Tufts] "**Word Retrieval in the Wild: An Ecological Momentary Assessment Pilot Study in People with Post-Stroke Aphasia,**" 2022-23 (1 yr), $39,377 (50%). Assess feasibility of using micro-EMA to study cognitive-linguistic deficits in persons with aphasia.

Co-I (PIs: Altschuler/Parsons) [NEH] "**Humanities and the Digital Future of Health and Healthcare: A Curriculum,**" 2022-25 (3 yr), $149,673 (10%). Develop a four-course undergraduate curricular pathway merging humanities and digital health.

NU PI (PI: Hiremath (Temple)) [NIH R01HD103904] "**mHealth-based Just-In-Time Adaptive Intervention to Improve Physical Activity Levels of Individuals with Spinal Cord Injury**," 2021-26 (5 yr), $855,666 (100%). Study integration of a mobile health JITAI with existing PA intervention programs to motivate health-related behavior change in individuals with spinal cord injury (SCI) and extend existing algorithms to robustly detect physical activity behaviors.

NU PI (PI: Spilsbury (Case Western Reserve Medical School) [NIH R01HD104601], "**Sleep Disparities' Role in Adolescent Fatigue and Functioning: A Mixed-Methods Study,**" 2021-26 (5 yr), $809,432 (100%). Extend and use a sleep monitoring system developed in a prior R21 to measure household chaos and impact on the sleep of Black and white adolescents, identifying factors responsible for sleep disparities and disentangling effects of sleepiness from fatigue.

PI (co-PI John, co-I Manjourides) [NIH R01CA252966] "**Accelerating the Development of Novel Methods to Measure 24-hr Physical Behavior,**" 2020-24 (4 yr), $3,056,385 (45% (33% in EPAWS)). Develop novel methods and algorithms to measure 24-hour physical behavior, and a shared dataset to help the research community to converge on algorithmic methods that accurately measure physical activity type and intensity, sedentary behavior and posture, and sleep in adults.

NU PI (PI: Hiremath (Temple)) [NIDILRR 90IFDV0018] "**Harnessing Social Networks to Personalize Sensor-Driven, Just-In-Time Physical Activity Interventions for Individuals with Spinal Cord Injury**," 2020-23 (3 yr), $253,141 (100%). Study how to structure messaging to integrate a mobile health just-in-time adaptive intervention (JITAI) with existing PA intervention programs to motivate health-related behavior change in individuals with spinal cord injury.

NU PI (PI: Hedeker (U. Chicago)) [NIH R01CA240713], "**Novel Statistical Models for Intensive Longitudinal Analyses of Cancer Control Behaviors**" 2019-23 (4 yr), $452,248 (100%). Make extensions to multilevel models for estimating subject-level effects of time-varying variables, test those extensions by conducting secondary analyses of data from three intensive longitudinal data collection studies, and enhance the usability, utility, and dissemination of the MixWILD software and user interface.

Co-I (PI: Bickmore/ Paasche-Orlow; Co-I: Parker, Hoffman) [NSF #1831755], "**SCC: Smart and Connected Churches for Promoting Health in Disadvantaged Populations**," 2018-22 (4 yr), $2,950,446 (22%). Use virtual conversational agents, sensor-enabled mobile technologies, and AI to assist church congregations with providing health and wellness support to their members.

PI, (co-PI: Dunton (USC)) [NIH U01HL146327], "**Microtemporal Processes Underlying Health Behavior Adoption and Maintenance**," 2018-22 (4 yr), $899,329 (100%). Use mobile technologies to collect data on micro-temporal mechanisms underlying the adoption and maintenance of physical activity, limited sedentary time, and sufficient sleep duration in emerging adults, and build more predictive health behavior theories and inform personalized behavior interventions to reduce obesity and improve public health.

NU PI (PI: Selker (Tufts)) [NIH UL1TR002544], "**Clinical and Translational Science Institute,**" 2018-23 (5 yr), $384,378 (100%). Serve as Associate Director of mHealth Informatics for the Tufts CTSI, which supports clinical and translational research using data science.

PI (Co-I: John) [NIH/QMedic], "**NHANES Cloud Data Processing,**" 2017-18 (11 months), $137,231 (75%). Run machine learning and data summarization algorithms on the 18,000+ person NHANES dataset, using the AWS infrastructure.

PI (Co-PI: Cooper, Co-I: Shiyko, John) [NIH UH2EB024407], "**Crowd-Sourced Annotation of Longitudinal Sensor Data to Enhance Data-Driven Precision Medicine for Behavioral Health,**" 2017-18 (2 yr), $300,665 (35%). Develop a game-based crowdsourcing system to facilitate annotation of accelerometer datasets to support research.

NU PI (PI: Henwood (USC)) [NIH R01MH110206], "**Understanding HIV Risk Environment for Youth in Supportive Housing,**" 2016-19 (3 yr), $233,763, (100%). Develop a context-sensitive EMA system to gather data on HIV risk among youth in supportive housing.

NU PI (PI: Hiremath (Temple)) [Craig H. Neilsen Foundation #382252], "**Just-In-Time Adaptive Feedback Systems to Assist Individuals with SCI,**" 2016-18 (2 yr), $82,944, (100%). Develop a sensor-driven, just-in-time measurement/intervention system to help spinal cord injury patients.

Co-I (PI: Fulmer; Co-I: D'Avolio, Howard, Jimison, Jones, McGuire, Pavel, Sceppa, Shiyko) [NIH P20NR015320], "**Northeastern Center for Technology in Support of Self Management and Health (NCTecH)**," 2014-19 (5 yr), $1,469,950, (~10% effort in Y1, then modest effort). Develop nursing research expertise and effective interventions in self-management for vulnerable older adults at risk for poor health outcomes, supported with the use of state-of-the-art technology to facilitate self-management interventions.

NU PI (co-PI: Hedeker(U. Chicago)/Dunton(USC)) [NIH/NHLBI R01HL121330], "**Novel Statistical Models for EMA Studies of Physical Activity**," 2014-17 (3 yr), $53,033 (100%). Develop and test novel multilevel statistical methods to examine the effects of subject-level parameters (variance and slope) of time-varying variables in EMA studies of physical activity.

PI [Google, Inc.], "**Modeling Temporally-dense Microinteractions to Promote Health Behavior Change**," 2013-14 (1 yr), $24,655 and equipment worth ~$12k (100%). Explore how heads-up displays such as Google Glass can support health behavior measurement and interventions using microinteractions.

NU PI (PI: Dunton (USC)) [NIH R01HL119255], "**Maternal Stress and Children's Obesity Risk**," 2013-18 (5 yr), $116,571 (100%). Determine whether levels of stress among working mothers are related to increased obesity risk in their children using novel methods such as ecological momentary assessment.

NU PI (PI: Albinali (EveryFit, Inc.) [NIH/NCI Contract HHSN261201300082C], "**SPADES: A System for Encouraging Adoption of New Methods for Activity Monitoring**," 2014-15 (1 yr), $145,803 (100%). Develop an open-source, cloud-based software service that facilitates rapidly gathering and analyzing high-resolution behavioral data.

Consultant and Co-I (PI: Albinali (EveryFit, Inc)) [NIH/NCI Contract HHSN261201200323P], "**Development of Algorithms for Detection of Physical Activity Patterns from Wrist-worn Triaxial Accelerometers**," 2012-13 (1 yr), $24,747 (100%). Collect data and test the performance of algorithms to detect ambulation from wrist-worn accelerometers.

NU PI (PI: Spilsbury (Case Western Reserve Medical School)) [NIH R21MD007632], "**Peer and Family Effects on Urban African-American Children's Sleep**," 2012-14 (2 yr), $89,341 (100%). Develop and test technology for semi-automatically gathering information about environmental factors that might impact sleep quality.

Co-PI (Co-PI: Dunton (USC)) [NIH R21HL108018], "**Using Mobile Phones to Reduce Missing Data in Youth Activity Monitoring Studies**," 2012-14 (2 yr), $425,668 (100% with a subcontract to USC). Develop a low-cost way to use common mobile phones to reduce and explain missing and ambiguous data collected in studies using objective monitors to measure physical activity and sedentary behavior in adolescents.

Co-I (PIs: Bickmore, Paasche-Orlow (Boston Medical), Shanahan (Boston Medical); co-Is: Fell, Gottlieb) [CIMIT Innovation Grant], "**Optimizing Hospital Workflow and Quality through Patient Engagement**," 2011-12 (1 yr), $97,527 (part-time student funding only). Improve inpatient care workflow via development of a patient-facing "Hospital Buddy" technology.

Grants Originally Awarded at MIT:

MIT PI (PI: Svetkey (Duke)) [NIH U01HL096720], "**Cellphone Intervention Trial for Young Adults (CITY)**," 2009-13 (5 yr), $1,183,506 (100%). Develop and evaluate (in a randomized clinical trial) sensor-enabled mobile phone technology to assist young adults with long-term weight loss and weight management.

MIT PI (PI: Rodes (RTI International)) [NIH NIEHS via RTI International], "**Development of Optimal Monitor Placement and Accelerometer Algorithms for Personal Contaminant Sensor Platforms with a Focus on Children's Activities**," 2009-10 (1 yr). Study (with Stanford School of Medicine, UC San Diego, LDEO/Columbia, and Battelle/PNNL) the use of sensor motion monitoring to improve a wearable, personal contaminant sensing in children.

MIT PI (PI: Rodes (RTI International)) [NIH NIEHS via RTI International], "**Development of Optimal Monitor Placement and Accelerometer Algorithms for Personal Contaminant Sensor Platforms**," 2008-09 (1 yr). Study (with Stanford School of Medicine, UC San Diego, LDEO/Columbia, and Battelle/PNNL) the use of accelerometry-based motion monitoring to improve a wearable, personal contaminant sensing in adults.

PI [NSF #0708375], "**CRI:CRD Development of Longitudinal Home Activity Datasets as a Shared Resource**," 2007-10 (3 yr), $799,034 (100%). Develop portable sensor tools that can be used in homes to collect shared datasets for computer science and health research.

PI [NIH U01HL091737], "**Enabling Population-Scale Physical Activity Measurement on Common Mobile Phones**," 2007-11 (4 yr), $2,942,179 (100%). With Stanford School of Medicine, create novel health monitoring tools for mobile phones. Included supplements to develop mobile context-sensitive ecological momentary assessment software for mobile phones ("**Extensible Platform for Implementing Experience Sampling on Mobile Phones**") and to use

custom-designed mechanical shakers and pattern recognition algorithms to demonstrate how phones can be used to produce output nearly equivalent to existing physical activity monitors ("**Encouraging GEI Activity Monitor Adoption: Demonstrating Device Equivalency**").

PI [Intel AIM Grant Program], "**AIM Proposal: End-User-Driven Training of Activity Recognition Algorithms**," 2007-10 (3 yr), $295,071 (100%). Study use in-home context sensing, where end-users drive the activity recognition algorithm training process.

MIT PI (PI: Buchowski (Vanderbilt)) [NIH R01HL082988], "**Physical activity energy expenditure and adolescent obesity**," 2007-09 (2 yr), $37,398 (100%). Provide House_n sensors to Vanderbilt researchers for energy expenditure measurement experiments in a room calorimeter.

MIT PI (PI: Velicer (Groden Center)) [National Alliance for Autism], "**Telemetric Assessment of Movement Stereotypy in Children with ASD**," 2006-08 (2 yr), $188,109 (100%). Explore (with the Groden Center, a school for autistic children, and the University of Rhode Island) the use of wireless accelerometers for automatic detection of autistic stereotypies.

PI [Microsoft Digital Memories (Memex) grant award], "**Integration of Memex and PlaceLab Datasets for Personal Investigations of Health and Living Patterns**," 2006-07 (1 yr), $50k (100%). Add Microsoft SenseCam technology to the PlaceLab.

MIT PI (PI: Bickmore (Northeastern)) [NIH R21LM008553], "**Just in Time Health Information for Exercise Adoption**," 2005-07 (2 yr), $51,000 (100%). Develop and test (with Northeastern and Harvard) a PDA-based system for motivating brisk walking.

MIT PI (PI: UNC) [Gatorade Seed Funds], "**Development of an Objective Measure of Television Watching**," 2005-06 (1 yr), $12,130 (100%). Adapt a wireless sensor toolkit (MITes) to detect sedentary television watching.

MIT PI (PI: Friedman (Boston Medical Center)) [NIH R21CA106745], "**Context-Sensitive Measurement of Physical Activity**," 2004-06 (2 yr). Develop and test (with BMC and Stanford) sensor technology for measuring physical activity.

PI [Intel AIM Grant Program], "**AIM Proposal: Detecting Idle Moments for Proactive Health Activities Using Personal and Environmental Sensors and Interfaces**," 2003-06 (3 yr), $295,071 (100%). Study context-aware computing for proactive health care.

PI [NSF #0313065], "**ITR: Detecting Activity in Homes with Ubiquitous Sensing to Support Aging in Place**," 2003-05 (2 yr), $337,000 (100%). Study activity of daily living (ADL) recognition from home sensors.

PI [IBM], **Faculty Award**, 2003, $20k (100%). Investigate ubiquitous computing technology.

PI [NSF #0112900], "**ITR/PE: Using context-recognition for preventative medicine in the home**," 2001-03 (2 yr), $319,916 (100%). Develop and test (with Boston Medical Center) sensors for home activity recognition.

PI [Robert Wood Johnson Foundation], "**Measuring and Motivating Stair Use in Public Spaces**," 2002-03 (1 yr), $44,445 (100%). Develop a system to measure and motivate stair use with digital point-of-decision prompting in a subway station.

FUNDED GRANTS (INTERNAL)

Co-PI (co-PI: Goodwin) [Northeastern University Impact Engine Pilot Award], "**Connect+,**" 2024 (6 mo), 100k. Conduct participatory design in the Khoury College of Computer Sciences to

develop concepts for increasing belonging and reducing loneliness using mobile and AI technology.

Co-I (PI: Barrett) [Northeastern University Tier 1 Research Grant], "**Brain-Computer Interface for Signaling Changes in Psychological States,**" 2013-14 (1 yr), 50k (consulting role only). Establish the feasibility of using a portable fNIRS device to measure large changes in emotional state and trigger mobile context-sensitive ecological momentary assessment.

Co-I (PI: Franko) [Northeastern University Tier 1 Research Grant], "**Mobile Technology for Obesity Prevention in Racially and Ethnically Diverse Young Adults**," 2012-13 (1 yr), $50k (consulting role only). Establish an evidence-based program for obesity prevention in students of color at risk for unhealthy weight gain using picture and text mobile technology.

Co-I (PI: Lincoln) (Northeastern University Tier 1 Research Grant), "**Exploring the use of innovative technologies in behavioral health,"** 2012-13 (1 yr), $50k (consulting role only). Support the Northeastern Mental Health Working Group to (1) host a symposium and (2) conduct preliminary research on the factors related to the adoption, implementation and effectiveness of interventions involving novel technology in behavioral health.

CONTRACTS

PI [National Cancer Institute/DCCPS/Applied Research Program], "**Generating a Free, High-Quality Food Product Database using Games with a Purpose,**" 2010-11 (1 yr), $24,995 (100%). Demonstrate the viability of using web games to generate a food/nutrition/UPC database that can be used for research and commercial purposes.

CONSULTANT ON GRANTS

Consultant (PI: Grigsby-Toussaint's (Brown University)) [NIH R01MD016241], "**Greenspace, Mental Health and Sleep**," 2021-26 (5 yr). Provide expertise on measurement of behavior from mobile phones.

Consultant (PI: Gershon) [NIH 1U24OD023319], "**Environmental influences on Child Health Outcomes: Patient Reported Outcomes Research Resource Center Core (ECHO PRO Core) (U24)**," 2016. Provide expertise on new sensor-enabled behavioral measurement instruments.

Consultant (PI: Quigley (Veteran's Administration)) (VA HSR&D PPO 14-144), "**Mobile Sleep and Pain Intervention for OEF, OIF and OND Veterans**," 2015-16 (1 yr). Pilot test the usability and feasibility of two mobile health technology tools, a mobile sleep monitor for home use and a VA-designed mobile health app for teaching cognitive behavioral skills for reducing chronic insomnia within a self-management program.

Consultant (PI: Albinali (EveryFit, Inc)) [NIH/NCI Contract], "**COMPASS: Capturing and Analyzing Sensor and Self-report Data for Clinicians and Researchers**," 2013-16 (3 yr). A project to develop/test a web-based system for collection and analysis of health-related sensor data.

Consultant (PI:Wilson (Columbia University)) [NIH/NIDA], "**Daily Psychosocial Determinants of ART Adherence in Substance-using Black Men**," 2012-15 (3 yr). Develop a daily proactive planning intervention to improve medication adherence for substance-using HIV+ Black men.

Consultant (PI: Albinali (EveryFit, Inc.)) [NIH NCI SBIR Contract HHSN261201100056C], "**A System for Encouraging Adoption of New Methods for Activity Monitoring**," 2011 (6 month). Develop a web-based system (SPADES) for storage and analysis of physical activity data.

Consultant (PI: Patrick (UCSD)) [NIH NCI SBIR Contract], "**e/Balance Phase 1,**" 2005-06. Provide guidance on mobile computing.

TEACHING AND ADVISING

For all courses taught (in reverse chronological order), the semesters taught and number of undergraduate (UG) and graduate (G) students in the class is indicated. Northeastern 5xxx and 6xxx level courses are graduate courses. "New" indicates that I developed or co-developed the course content.

COURSES (NORTHEASTERN)

HSCI 4740: Health Science Capstone: Active Transportation via Cycling
New senior-level undergraduate seminar capstone course I developed, where all students work on inter-related projects under the umbrella of a single academic theme. Spring 2022 (17 UG), Spring 2023 (12 UG), Spring 2024 (16 UG), Spring 2025 (12 UG).

HONR 3310: Creating the Future: Transforming Healthcare with Mobile Health (mHealth).
Project-based undergraduate interdisciplinary honors course that I redeveloped introduces mobile health and its impact on health and wellness. Fall 2021 (11 UG).

CS 2484: Human/Computer Interaction
Redesigned undergraduate introduction to HCI course (formerly IS 4300). Fall 2025 (worked with two faculty to prepare all course materials).

IS 4300 and CS 5340: Human/Computer Interaction
Project-based undergraduate (IS 4300) and graduate (CS 5340) introduction to topics in human-computer interaction, with projects targeted in the health domain. Spring 2020 (28 UG, 17 G students), Spring 2012 (CS 5340 only: 13 G students), Spring 2021 (39 UG, 26 G), Fall 2023 (IS 4300 only: 29 UG students).

IS 4800 / CS 6350: Empirical Research Methods in Information Science
Introductory course on methods for conducting empirical research within the field of computer and information science, especially to study usability, effectiveness, and acceptability of systems and their impact on individuals, work groups, organizations and society. Fall 2019 (13 UG, 4 G).

DS 2001: Programming with Data (Health Practicum)
New transdisciplinary introductory programing and project-based two credit course co-taught between Khoury College and Bouvé College of Health Sciences, where students learn Python programming with data with an emphasis on health data. Fall 2018 (13 UG), Spring 2019 (14 UG), Fall 2019 (two sections, 18 UG total), Fall 2020 (11 UG), Spring 2021 (10 UG).

HINF 5300: Personal Health Interface Design & Development
New transdisciplinary project-based course on the design of personal health interfaces. Fall 2013 (8 UG, 13G students, co-taught with Rupal Patel), Fall 2014 (2 UG, 14 G), Fall 2015 (11 G), Fall 2016 (11 G), Fall 2017 (12 G), Fall 2019 (7 G).

HINF 5301: Evaluating Health Technologies
Redesigned 5301coures to focus on conceptualization and evaluation of health technologies, especially innovative personal health informatics systems. Spring 2023 (9 G), Spring 2024 (11 G), Spring 2025 (6 UG, 9 G)

HINF 5301: Personal Health Technologies: Field Deployment and System Evaluation
New transdisciplinary project-based course on the evaluation of personal health informatics systems. Spring 2014 (Co-taught with Rupal Patel).

CS 4520 (UG)/ CS5520 (G): Mobile Application Development
New programming and project course on the design and development of Android mobile applications, where projects are targeted in the health domain. Summer 2011 (17 UG, 15 G students), Fall 2012 (9 UG, 46 G students), Spring 2013 (13 UG, 22 G + 1 G directed study), Fall 2013 (13 UG, 21 G), Spring 2014 (14 UG, 15 G), Fall 2014 (4 UG, 18 G), Spring 2015 (18 UG, 18 G), Spring 2016 (14 UG, 28 G), Spring 2017 (15 UG, 23 G).

PHTH 5228: Advances in Measuring Behavior
New survey and project-oriented course examining current and emerging methods of measuring human behavior known to impact human health. Discusses some of the most common instruments used to measure everyday behaviors and considers how emerging technologies may change how these behaviors are measured in the future. Fall 2011 (1 UG, 3 G students), Spring 2013 (2 UG, 2 G), Spring 2014 (3 G), Spring 2015 (1 UG, 3 G), Spring 2016 (8 G).

COURSES: PEER-REVIEWED SEMINAR COURSES (EXTERNAL)

SIGGRAPH course: "Building Interactive Spaces" (with C. Pinhanez)
Summer 2002 (full day) and 2003 (half-day).

SUPERVISION OF GRADUATE STUDENTS (PH.D. AND M.S. THESIS AT NORTHEASTERN)

Graduated Ph.D. Students:

- Binod Thapa Chhetry, Ph.D. Personal Health Informatics, May 2024 "Continuous measurement of sleep, sedentary behavior, and physical activity levels from accelerometer data using robust algorithms and practical sensing systems"
- Aditya Ponnada, Ph.D. Personal Health Informatics, Dec 2021 "Measuring subjective experiences using wearable microinteractions"
- Qu Tang, Ph.D. Computer Engineering, Aug 2021, "Practical personalized activity recognition systems with wearable motion sensors: On detecting hand hygiene behaviors"

Current Ph.D. Students: Jixin Li (PHI Ph.D. 6th year,), Rithika Lakshminarayanan (PHI Ph.D. 6th year), Hoan Duc Tran (PHI Ph.D.), Veronika Potter (CS Ph.D., 3rd year), Ha Le (CS Ph.D. 3rd year, co-mentored with V. Mishra), Jin-seo Kim (PHI Ph.D., 2nd year), Umberto Mazzucchelli (CS Ph.D. 2nd year)

Graduated M.S. Thesis Students:

- Yifei Sun, M.S. Electrical & Computer Engineering, 2013, "Implementation and pilot testing of an Android-based real-time activity detection system"
- Qu Tang, M.S. Computer Engineering, Aug 2014, "Automated detection of puffing and smoking with wrist accelerometers"

SUPERVISION OF UNDERGRADUATE STUDENTS (NORTHEASTERN HONORS THESIS)

Health Science Honors Thesis Students:

- Kyleigh Watson, B.S. Health Science, May 2022, "Optimizing secondary cancer prevention through mHealth: A critical review of the literature" (co-advised with M. Goodwin)
- Aidan Baglivo, B.S. Health Sciences, May 2021, "Becoming a citizen scientist: Advancing digital health through self-study" (co-advised with M. Goodwin)

OTHER ADVISING ACTIVITIES

Note: Years listed are year worked or graduation date. I have worked with additional students as paid, part-time undergraduate- and MS-level staff on various projects; not *all* such students are listed below.

NIH K23 Mentored Patient-Oriented Research Career Development Award Investigator Mentor: Shanthani Kasturi (Tufts) (2021-2026)

Khoury Distinguished Postdoc Mentor: Vedant Das Swain (2023-25, now faculty at NYU)

Postdocs: Fahd Albinali (2008-2010, now Founder and CTO of QMedic), Jonathan Lester (2010, now Principal Researcher at Microsoft Research)

Research Staff: Jason Nawyn (2008-2011), Yi Han (2010), Jennifer Beaudin (2003-09).

Graduate Students (in addition to those above) (advising/co-advising): Arushi Uppal (CS MS, 2025), Tinashe Tapera (Health Informatics MS), Navid Akbar (NU PHI PhD, mentor Fall 2018, transferred), Aida Ehyaei (NU COE PhD, 2014-16), Stephen Flaherty (NU PHI PhD, 2013-14, transferred), Shang Ma (NU PHI PhD, 2013-14, transferred), Yifei Sun (NU ECE MS, 2013), Tony Lazenka (NU CS MS, 2013), Selene Mota (MIT Computation and Design, PhD), Anh Dang Viet Nguyen (MIT EECS MEng, 2011), Ned Burns (MIT MAS S.M., 2010), Clay Williams (MIT EECS MEng, 2009), Hyon Lee (MIT EECS MEng, 2009), Emmanuel Munguia Tapia (MIT MAS PhD, 2008, MAS S.M., 2003), Randy Rockinson (MIT MAS S.M., 2008), Kenneth Cheung (MIT Arch S.M., 2008), Manu Gupta (MIT MAS S.M., 2008), Louis Lopez (MIT EECS MEng, 2005), Jason Nawyn (MIT MAS, 2005), Pallavi Kausik (MIT MAS, 2005), Joyce Ho (MIT EECS MEng, 2004, now faculty at Emory University), Jacob Hyman (MIT EECS MEng, 2003), Ling Bao (MIT EECS MEng, 2003), John Rondoni (MIT EECS MEng, 2003), Reid Williams (MIT EECS MEng, 2003), Neil Chungfat (MIT EECS MEng, 2002), Rania Khalaf (MIT EECS MEng, 2001), Joseph Su (MIT MechE S.M., 2001), Byron Stigge (MIT Arch S.M., 2001)

M.S. thesis reader: Charlie DeTar (MIT MAS, 2009), John Moore (MIT MAS, 2009), Sean Wheeler (MIT MAS 2009), Karen Liu (MIT MAS, 2004)

MS capstone advisor: Stephanie Santana (NU HS, 2016-2017), Caitlin Haynes (NU HS, 2015)

MS project advisor: Wenqing (Miranda) Zeng (NU MS in CS, 2025), Noam Gal (NU MS in CS, 2022), Aditya Appana (NU MS in AI, 2022)

Non-thesis students mentored with publications: Dharam Maniar (NU CS MS, 2014-2016), Rahul Verma (2015), Bin Bo (NU CS MS 2014), Tricia Povilonis (NU EXCS MS, 2014)

Ph.D. Committee: Maciej Kos (NU PHI, 2021-), Herman Saksono (NU Khoury, 2020), Lazlo Ring (NU CCIS, 2017), Mansoor Pervaiz (NU PHI), Langxuan (James) Yin (NU CCIS, 2015), Laura Vardoulakis (NU CCIS, 2012-2013), Shyamal Patel (NU COE, 2012), Ari Benbasat (MIT MAS, 2004)

Ph.D. Exam Committee: Mansoor Pervaiz (NU PHI, 2016), Zessie Zhang (NU PHI, 2015), Mansoor Pervaiz (NU PHI, 2015)

External Ph.D. Committee: Shirlene Wang (USC, 2023), Chaofan Wang (U. of Melbourne, 2022), Eldin Dzubur (USC, 2017), Andrea Mannini (Scuola Superiore di Studi Universitari e di Perfezionamento CS, 2013), Shivayogi Hiremath (Pittsburgh, 2011-13), Cory Cornelius (Dartmouth, 2012-2013).

Visiting or special students: Andrea Mannini (2012), Vincent Zheng (2010), Noah MacNeil (2009), Bruno Lepri (2008), Aydin Oztoprak (2008), Antonio Rodriguez (2008), Till Pieper (2006), Jon Lin (2002), Joachim Bottger (2000)

Senior project advisor: MIT EECS Senior projects: Matthew Marshall (MIT EECS 2010), Pamela Hollingsworth (MIT EECS 2006), Bill Walsh (MIT EECS 2006), Alex Mekelburg (MIT MechE, 2005)

NU graduate research co-op students: Yakshitha Poonati (NU MS in Health Informatics, 2022)

NU undergraduate research co-op students: Cole Saucier (NU Computer Science, 2025), Shi Rao (NU Computer Science, 2025), Ritu Shah (NU Computer Science, 2024), Grace Gillen (NU Computer Science and Design, 2024), Eleanor Washburn (NU Data Science and Health Science, 2024), Marco Grados (NU Health Science, 2024), Bennett Hartley (NU Bioengineering, 2023), Sneha Kini (NU Biology, 2023), Bianca Reuter (NU Business, 2023), Michael Jeans (NU Biology, 2023), Yash Sanghvi (NU Biology, 2022), Tess Willinger (NU Health Sciences, 2022), Aiden Borts (NU Health Science, 2021), Evan Andre (NU Khoury, 2021)

NU undergraduate research students: Hannah Bang (NU Data Science, 2025), Christina Tong (NU Health Science, 2022), Adithya Palle (NU CS, 2022), Aryton Hoi (NU CS, 2021), Spencer Franklin (NU CCIS 2017), Max Rais (NU CCIS 2017), Anne Smithey (NU HS 2017), Roger Cornell (2015), Daniel Speroni (2014), Kati Philips (2012), Vy Nguyen (2012)

MIT undergraduate research students: Cynthia Lu (2010), Alec Poitzsch (2010), Molly McShane (2010), Matt Falk (2009), Peter McKee (2009), Tobe Nwanna (2009), Anh Dang Viet Nguyen (2008), David Wen (2007), Aiko Nakano (2006), Eleojo Ocholi (2005-2006), Melinda Tang (2005), Leevar Williams (2005-2006), Mikala Streeter (2006), Kevin Luu (2005), Qian Wang (2005), Dan Guarda (2004), Amanda Seybold (2004), Christina Hawkes (2004), Armando Valdes Samaniego (2003), Jesse Lacika (2003), Michael Ehrenberg (2003), Vivienne Lee (2002-2003), Peter Sung (2003), Sachin Gupta (2003), Tian He (2003), Alan Mcconnel (2003), Waseem Bakr (2002-2003), Isaac Rosmarin (2002), Folu Okunseinde (2001-2002), Brian Theisen (2001), Jacob Kitz (2000), Anthony Hui (1999), Kamal Mokeddem (1998), Qian Wang and Nick Lesica (1997-1998), Ann Bui and Andreas Argyriou (1995), and Salil Pitroda (1994)

Other undergraduate research students: Lana Roskin (Wellesley, 2010), Collette Whitaker (Wellesley, 2009), Shyam Srinivasan (CalTech, 2008), Katie Zarroli (Wellesley, 2006), Alex Higuera (2006)

Internships: Alex Tran (Summer 2022), Anmol Sakarda (Summer 2017, Summer 2018), David Cheff (2005-2006), Evelyn Kapusta (2003), Isabel Ancona (2002), Meghann Evershed (2002), Suzanne Seale (2002)

Northeastern directed/independent study courses: Rohan Joshi (CS, Spring 2014), Rebecca Joachim (HS, Fall 2012), Kati Philips (HS, Fall 2012)

SERVICE AND PROFESSIONAL DEVELOPMENT

SERVICE TO NORTHEASTERN UNIVERSITY

KHOURY/PUBLIC HEALTH AND HEALTH SCIENCES SERVICE

- Khoury Area Chair for Human Centered Computing Research (2022-)
- Khoury Hiring Committee (ex-officio) (2023-25)
- Chair Dept. Public Health and Health Sciences AI and Health Hiring Committee (2024-25)
- PHHS MS in AI Curriculum development (Spring 2025)
- Chair Dept. Health Sciences Health and Technology/Data Hiring Committee (2022-23)
- Dept. Health Sciences Academic Standing Committee (2022-25)
- Dept. Health Sciences Faculty Mentor (2023-25)

- Chair Dept. Health Sciences Digital Health & Data Justice Hiring Committee (2021-22)
- Co-chair Khoury T/TT Hiring Committee (2020-21)
- Khoury Research and Awards Committee (2022-26)
- Dept. of Health Sciences Digital Phenotyping Hiring Committee (2020-21)
- Health Sciences Tenure and Promotion Committee (2012-)
- MS Health Informatics and Health Data Analytics Curriculum Committee (2016-18)
- Khoury College of Computer Sciences Tenure Committee (2011-)
- Khoury College of Computer Sciences Full Professors Committee (2023-)
- Khoury Sabbatical Committee (2019-20)
- Khoury Teaching Evaluation Committee (2019-20)
- Health Sciences Exercise Faculty Committee (2011-17)
- College of Computer and Information Sciences Ph.D. Committee (2010-12, 2015-8/17)
- Master's in Public Health (MPH) committee (2010-15)
- Exercise Science Hiring Committee (2010-11)
- College of Computer and Information Sciences Hiring Committee (2013-15)
- Junior faculty mentoring: Varun Mishra, Herman Saksono, Aarti Sathyanarayana, Annika Schoene (2025-), Amy Lu, Winston Kennedy (2024-25)
- PHHS Prevention Science Working Group (2024-25)

SCHOOL SERVICE

Bouvé HS/AP School of Public Health Task Force (2019-21)

COLLEGE OR CROSS-COLLEGE SERVICE

- Health Informatics MS Committee (2011-17, 2022-23)
- PhD Personal Health Informatics Committee (2012-21) (Chair 2012-8/17, 9/18-22) (2023-25)
- University Standing Appeals Committee on Tenure (2020-23)
- Director of Digital Health Hiring Committee (Chair 2018-19)
- Provost's Office Working Group on Obesity Research (2012-13)
- Health Policy and Law Faculty Working Group (2010-14)
- Center for Health Policy and Healthcare Research Working Group (2011-14)
- Personal Health Informatics Hiring Committee (2010-12)
- School of Nursing Dean Hiring Committee (2013-14)

UNIVERSITY SERVICE

Faculty Senate Academic Policy Committee (2015-17) (Chair, Spring 2017)

UNIVERSITY SERVICE: PROGRAM DIRECTION

Director of the Personal Health Informatics Doctoral Program (2011-8/17,9/2018-2024). Responsibilities have included initial development and University approval of the program (2010-11), student advising (2011-current), curriculum and policy development (2011-current), website/advertising (2011-18), open houses (2012-21), research track development for MS program (2013-14), co-directing the PHI Practicum experience (Spring 2013 – 4 students), organizing a PHI Seminar Speaker Series (Fall 2012, Spring 2013), media outreach (2013), attending Bouve PhD Directors Working Group Meetings (2016-), attending Bouve Health Sciences Program Director Meetings (2018-), and making presentations at remote campuses: Seattle (2014) and Charlotte (2011).

SERVICE TO THE DISCIPLINE

SERVICE: EDITORIAL BOARDS AND PROGRAM COMMITTEES

IEEE Pervasive Computing

- Associate Editor in Chief (2018-)
- Editorial Board (2015-)
- Co-Guest-Editor "Grand Challenges in Pervasive Computing" issue (Nov 2021-22)
- Co-Guest-Editor "Personal Pervasive Health" issue (Jul-Sep 2020)
- Co-Editor (with A. Dey and J. Favela), Dept. of Pervasive Health (2012-18)

PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) (Journal associated with Ubicomp Conference)

- Associate Editor (2016-2017, 2018-2020, 2021-present)

International Conference on Ubiquitous Computing (UbiComp)

- Technical Program Committee Co-Chair (2005)
- Steering Committee (2005-07)
- Technical Program Committee (2007, 2004)

Conference on Human Factors in Computing Systems (CHI)

- Associate Chair (User Experience and Usability subcommittee) (2021, 2022, 2023)
- Associate Chair Reviewer (CHI) (2009)

Journal for the Measurement of Physical Behaviour

- Associate Editor (2017-20)

Other Technical/Scientific Program Committees:

- Pervasive Health (2017, 2019, 2020)
- ARDUOUS: International Workshop on Annotation of useR Data for UbiquitOUs Systems (2017, 2018, 2019, 2020, 2021, 2022)
- International Conference on Persuasive Technology (Persuasive) (2006, 2008-22)
- Int. Conf. on Ambulatory Monitoring of Physical Activity & Movement (ICAMPAM) (2012-13)
- AAAI Fall Symposium on AI for Gerontechnology (2012)
- mHealthSys Workshop (2011, 2012)
- Human Behavior Understanding and Behavioral Change Workshop (2011)
- Int. Workshop on Frontiers in Activity Recognition using Pervasive Sensing (2011)
- Mobile Sensing: Challenges, Opportunities and Future Directions Workshop at Ubicomp (2011)
- AAAI Fall Symposium on AI in Eldercare (2008)
- International Conference on Smart Homes and Health Telematics (ICOST) (2008)
- European Conference on Ambient Intelligence (2007)
- International Conference on Technology and Aging (2007).
- International Conference on Pervasive Computing (Pervasive) (2005)
- IEE International Workshop on Intelligent Environments (2005)

International Journal of Medical Informatics Special Issue on "Designing for Healthy Living" Editorial Team (2011)

SERVICE: ORGANIZING COMMITTEES

National Academy of Engineering

- Symposium on Frontiers of Engineering Organizing Committee (2005)
- Invited "Smart Homes" Session Co-organizer for the 2014 EU-US Frontiers of Engineering Symposium (2014)

Core Faculty Member and Northeastern University host: 2012 mHealth Summer Training Institute (Jul 29 – Aug 3, 2012)

Other organizational/roles:

- Selection Committee for the NSF Graduate Student Travel support for the Int. Conf. on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM) (2017)
- International Conference on Diet and Activity Measurement Session Chair, "New technologies for monitoring physical activity" (2012)
- IMIA Smart Homes and Ambient Assisted Living Working Group (2006)
- AAAI Spring Symposium on Argumentation for Consumers of Healthcare Organizing Committee (2006)
- Boston Physical Activity Collaborative (BPARC) (2016-20)

SERVICE: WORKSHOP ORGANIZATION

- **Big Data Opportunities and Challenges in Mobile Health Workshop** with Wendy Nilsen and Mary Rodgers (NIH), Santosh Kumar (Memphis), and Deborah Estrin (Cornell Tech), ACM Conference on Knowledge Discovery and Data Mining (KDD 2014), New York, NY, Aug 2014
- **New Technology to Assess Physical Activity** with Patty Freedson (UMass Amherst), Catherine Loria (NIH), Jacqueline Kerr (USCD), and Mingui Sun (U. Pittsburgh), ISBNPA Conference, Austin, TX, May 2012
- **International Workshop on New Computationally-Enabled Theoretical Models to Support Health Behavior Change and Maintenance** with D. Spruijt-Metz (USC), Illka Korhonen (Tampere U. of Technology), Niilo Saranummi (VTT Technical Research Centre), and Wendy Nilsen (NIH OBSSR), Funded by the National Science Foundation, Brussels, Belgium, Oct 2012
- **How To Do Good Research In Activity Recognition: Experimental Methodology, Performance Evaluation and Reproducibility** with Paul Lukowicz (Univ. of Passau, Germany) and Jamie A Ward (Lancaster University, UK), International Conference on Pervasive Computing (Pervasive Conference) Workshop, Helsinki, Finland, May 2010
- **Developing Shared Home Behavior Datasets to Advance HCI and Ubiquitous Computing Research** with Gregory Abowd (Georgia Tech), Beth Logan (Intel), and Jason Nawyn (MIT), CHI Workshop, Boston, MA, Apr 2009
- **Engagement by Design** with Tim Bickmore (Northeastern), and Sunny Consolvo (Intel), CHI Workshop, Boston, MA, Apr 2009
- **Caring Machines: AI in Eldercare** with Timothy Bickmore (Northeastern), Henry Kautz (Rochester), Karen Haigh (Honeywell Laboratories), and Richard Simpson (University of Pittsburgh), AAAI Fall Symposium, Washington, DC, Nov 2005

- **HCI Challenges in Health Assessment** with Margaret Morris (Intel), CHI Workshop, Portland, OR, Apr 2005
- **Home Technologies to Keep Elders Connected** with Jay Lundell (Intel) and Margaret Morris (Intel), CHI Workshop, Vienna, Austria, Apr 2004
- **Caring Machines: AI in Eldercare** with Timothy Bickmore (Northeastern), Henry Kautz (Rochester), Karen Haigh (Honeywell Laboratories), and Richard Simpson (University of Pittsburgh), AAAI Fall Symposium, Washington, DC, Nov 2005
- **HCI Challenges in Health Assessment** with Margaret Morris (Intel), CHI Workshop, Portland, OR, Apr 2005
- **Home Technologies to Keep Elders Connected** with Jay Lundell (Intel) and Margaret Morris (Intel), CHI Workshop, Vienna, Austria, Apr 2004

SERVICE: OTHER REVIEWING AND GRANT REVIEWING

Grant Reviewer

- National Institutes of Health review panel: Mobile Health: Technology and Outcomes in Low- and Middle-Income Countries (R21) (2014, 2015, 2017)
- Interventions to Prevent and Treat Addictions (IPTA) Study Section ad hoc reviewer (2020)
- National Institutes of Health special panel reviewer (2009, 2010, 2012, 2015 (panel chair))
- National Science Foundation panels (multiple years)
- ILSI North America Committee on Balancing Food & Activity for Health pilot award on "Innovative Tools for Assessing Diet and Physical Activity for Health Promotion" (2017)

Conference and Journal Reviewer (2002-present)

- *In addition to the conferences and journals listed above*, I have reviewed for IEEE TITB, ACM Transactions on Computing for Healthcare, the Pervasive Conference, the Conference on Computer Supported Cooperative Work, the User Interface and Software Technology Conference (UIST), the International Symposium on Wearable Computers Conference, Pattern Recognition and Machine Intelligence, Pervasive and Mobile Computing, and Translational Behavioral Medicine: Practice, Policy, and Research Journal, International Conference on Intelligent User Interfaces, and Journal of Biomedical and Health Informatics.

External Tenure and Promotion Reviewer

- Cases in 2023, 2024, 2025

SERVICE: INVITED PARTICIPATION AS EXPERT PANELIST OR CONSULTANT

- Invited Judge, Northeastern ViTAL Hacks Hackathon, March 28, 2025
- Invited Expert Panel Member, 2021, IEEE International Conference on Digital Health (ICDH) panel on Intensive Longitudinal Assessment, Virtual, Sep 8, 2021
- Invited Expert Panel Member, Technology in Psychiatry Summit: The Future of Mental Health Across the Lifespan, McLean Hospital Institute for Technology in Psychiatry, Boston, MA, Oct 8, 2019
- Invited Expert Panel Moderator, Using Technology to Prevent Childhood Obesity" Federal Challenge, Health Resource Service Administration's (HRSA's) Maternal and Child Health Bureau (MCHB), Rockville, MD, Sep 2019
- Invited Expert Panel Moderator, Promises and Perils of Emerging Health Innovations Annual Health Law Conference, Northeastern, University, Boston, MA, USA, Apr 2019

- Invited Expert Panel Member, Process of establishing validation and standardization of wearable device measures, Wearable Devices & the 24-hour Activity Cycle: A Framework for Developing Daily Activity Recommendations Workshop, Stanford University, Stanford, CA, Apr 27-28, 2016
- Expert participant, NIH Workshop on Canine Aging, University of Washington, Dec 1, 2015 (virtual participation)
- Expert consultant, Federal Highway Administration Exploratory Advanced Research (EAR) Program's initial stage investigation into wearable sensors for public-sector transportation research, Remote participation, Fall, 2015
- Expert Judge, Hacking Eating Tracking, Harvard Medical School, Cambridge, MA, Sep 19, 2015
- Panelist, "I'm Directing My Health: Embracing Personal Health Informatics in the New Era of Wellness," Washington Biotechnology & Biomedical Association, Seattle, WA, Sep 18, 2014
- Panelist, "Panel XI: Someone to Watch Over Me: Mobile Device Research and the Sense of the Self," 2013 Advancing Ethical Research Conference, Hynes Convention Center, Boston, MA, Nov 9, 2013
- Invited Expert, National Cancer Institute Big Data and Theory Advancement Workshop Bethesda, MD, Sep 19-20, 2013
- Panelist: The Future of Health IT for Behavioral Health on the topic of Computational Sensing & Machine Learning, Technology Innovations for Substance Use and Mental Health Disorders Conference (Hosted by the Office of National Drug Control Policy) White House Eisenhower Executive Office Building, Washington, DC, Sep 16, 2013
- Invited Expert, National Cancer Institute Science of Research and Technology Branch Meeting, NIH, Bethesda, MD, Feb 12, 2013
- Panelist, Symposium on the Innovative Use of Technology in Behavioral Health Care, Northeastern University, Boston, MA, Sep 24, 2012
- Expert Guest, Can Smartphone Apps Change Our Behavior? Radio Boston WBUR Radio Show (Boston NPR affiliate), Boston, MA, May 30, 2012
- Expert Panel Member, Active Transportation Expert Panel Meeting, Centers for Disease Control and Prevention, Atlanta, GA, Feb 27-28, 2012
- Invited Panelist, 1st IEEE EMBS Unconference on Wearable and Ubiquitous Technology for Health and Wellness, Boston, MA, Aug 30, 2011
- Discussion Leader, Science of Sedentary Behavior, Stanford Center for Longevity, Stanford, CA, Jul 15-16, 2010
- Invited Speaker, mHealth Barriers Workshop: Reducing Barriers to Mobile Technology Usage in Behavioral and Social Science Research, National Institutes of Health, Bethesda, MD, Jun 7-8, 2010
- Invited Speaker, Objective Measurement of Physical Activity Conference: Best Practices and Future Directions, NIH and American College of Sports Medicine (ACSM), Bethesda, MD, Jul 20-21, 2009
- Expert Guest, Show on Persuasive Technologies, National Public Radio Science Friday, Mar 7, 2008
- Selected Participant, National Academies Keck Futures Conference on Extending the Human Healthspan, Irvine, CA, Nov 2007
- Invited Expert Panelist, New Technologies for Energy Balance Measurement and Intervention Research, Food and Nutrition Conference & Exposition (FNCE), Philadelphia, PA, Oct 2, 2007

- Invited Expert Panelist, Health e-Technologies Initiative RWJF Childhood Obesity Grant, Summer and Fall, 2006

SERVICE: INVITED TALKS OR SYMPOSIUMS

- Invited Speaker: "Methods for Integrating with Ecological Momentary Methods," AI and Health Behaviors for Healthy Aging (National Institute of Aging), June 25, 2025.
- Invited Speaker: "Microtemporal Processes Underlying Health Behavior Adoption and Maintenance: the TIME Study," NIH Behavioral and Social Sciences Research (BSSR)-CC Meeting, February 3, 2023.
- Invited Speaker: "Signaligner Pro," Technology in Psychiatry Online Summit. Oct 29, 2020
- Invited Symposium on "Novel Methods for Capturing Subjective Intensive Longitudinal Data within Long term Epidemiological and Intervention Studies" in the 41st Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine (San Francisco, CA), Apr 2019.
- Invited Speaker: "Improving Behavioral Measurements from Mobile Devices," MD2K Center of Excellence for Mobile Sensor Data-to-Knowledge Webinar, Dec 7, 2017
- Invited Speaker: "Improving Behavioral Measurements from Mobile Devices" Tufts CTSI Translational Research Day (Sensors, Devices, and Biomarkers), Boston, MA, Nov 14, 2017
- Invited Speaker and Expert Panelist, Tech Day, 21st International Association of Gerontology and Geriatrics (IAGG) World Congress. San Francisco, CA, Jul 26, 2017
- Invited Teleconference Presenter, "mHealth Research Group," Boston Physical Activity Resource Collaborative (BPARC), Jul 13, 2017
- Invited Speaker, "Measuring behavior using mobile technology and micro ecological momentary assessment", Innovations in Behavioral and Social Health Sciences (i-BSHS) Lecture, Brown University School of Public Health. Providence, RI, Nov 4, 2016
- Invited Speaker, "Measuring Behavior and Motivating Health Behavior Change Using Mobile Technology: Opportunities and (Difficult) Challenges," UConn Center for Health and Prevention (CHIP), Storrs, Connecticut, Apr 14, 2016
- Invited Speaker, Annual Gershoff Symposium, Tufts University Friedman School of Nutrition Science and Policy, Boston, MA, Apr 8, 2016
- Invited Speaker and Panelist, "How to Apply Big Data and Analytics to Food Intake Measures at Population and Individual Levels", Big Data and Innovative Approaches to Understanding Dietary Patterns and Health, ILSI North America Special Conference at the Experimental Biology Conference, San Diego, CA, Apr 2, 2016
- Invited Speaker, Standing Up to Sedentary Behavior: Sedentary Behavior Conference, Urbana-Champaign, Illinois, Oct 16, 2015
- Invited Speaker, BostonCHI, Cambridge, MA, Oct 13, 2015
- Invited Speaker, Precision Medicine Initiative Workshop: Public workshop on unique scientific opportunities for the national research cohort, National Institutes of Health, Bethesda, MD, Apr 28-29, 2015
- Invited Speaker and Panelist, Committee on Evaluating Approaches to Assessing Prevalence and Trends in Obesity Data Gathering Workshop, National Academies of Sciences, Engineering, and Medicine, Washington, DC, Jul 28, 2015
- Invited Speaker, Advancing Wellbeing Speaker Series, MIT Media Laboratory, Cambridge, MA, Feb 26, 2015

- Invited Speaker, Motivation and Technology in Physical Activity Meeting (Sponsored by the Danish Diabetes Association), University of Copenhagen, Copenhagen, Denmark, Jan 8, 2015
- Invited Speaker, NUCare – Northeastern University Center for Self Care & Health Speaker Series, Northeastern University, Boston, MA, Dec 1, 2014
- Invited Speaker, New Vistas in Emotion and Technology, Northeastern University, Boston, MA, Jan 31, 2014
- Invited Speaker, E-tools and Social Networks for Epidemiology International Colloquium Cité Internationale Universitaire, Paris, France, May 21, 2013
- Invited Speaker, MIT Course HST 936: Global Health Informatics to Improve Quality of Care, Cambridge, MA, Apr 12, 2013
- Invited Keynote Speaker, International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM 2013), Amherst, MA, Jun 2013
- Invited Keynote Speaker, "Towards Population Scale Measurement of Physical Activity and Sedentary Behavior," Gait and Clinical Movement Analysis Society Annual Meeting, Cincinnati OH, May 15, 2013
- Invited Speaker, "Opportunities to Use Real-time Feedback for Intervention Development," Centers for Population Health and Health Disparities Annual Meeting, Boston, MA, May 1, 2013
- Invited Speaker: Nutrition Games Track, "Food Lord: Generating a Free, High-Quality Food Product Database using Games with a Purpose," Games for Health Conference, Boston, MA, Jun 2012
- B.F. Skinner Lecturer, Association for Behavior Analysis International (ABAI) Annual Meeting, Seattle, WA, May 27, 2012
- Invited Speaker, Session: "New technologies for monitoring physical activity," The International Conference on Diet and Activity Measurement, Rome, Italy, May 2012
- Invited Speaker, Center for Technology and Behavioral Health, Dartmouth University, Hanover, NH, May 3, 2012
- Invited Speaker: "New Technology (using a mobile phone) to Assess Physical Activity Behavior," Measurement & Evaluation (M&E) Council at American Alliance for Health, Physical, Education, Recreation, and Dance (AAHPERD), Boston, MA, Mar 13, 2012
- Invited Speaker on "Emerging Technologies for Measuring Individual Exposomes," National Academy of Sciences, Washington, DC, Dec 2011
- Invited presentation, MD Anderson Cancer Research Center, Houston, TX, Dec 2010
- Invited Speaker, Research Society on Alcoholism 2010 Satellite Symposium, NIH NIAAA, San Antonio, TX, Jun 25, 2010
- Invited Presentation (made by Dr. Fahd Albinali, postdoc), Second IEEE Workshop on Interdisciplinary Research on E-health Services and Systems, Montreal, QC Canada, Jun 14, 2010
- Keynote Speaker, Pervasive Health International Conference, Dublin, Ireland, May 2011
- Invited Symposium Speaker, 3rd International Congress on Physical Activity and Public Health, Toronto, Canada, May 5-8, 2010
- Invited Colloquia Speaker, Department of Preventive Medicine, Northwestern University, Chicago, IL, Mar 16, 2010
- Invited Speaker, Workshop on New Frontiers in Measurement: Phenotypes, Endophenotypes, and Envirotypes for Genetic and Behavioral Studies of Nicotine Dependence, NIH Office of Behavioral and Social Sciences Research (OBSSR), Baltimore, MD, Feb 24, 2010

- Speaker, American Public Health Association Annual Meeting, Philadelphia, PA, Nov 2009
- Invited speaker, Facilitating Interdisciplinary Research: Methodological and Technological Innovation in the Behavioral and Social Sciences, National Institutes of Health, Bethesda, MD, Oct 2009
- Invited speaker, Science of Behavior Change, National Institutes of Health, Bethesda, MD, Jun 15-16, 2009
- Symposium Speaker, International Conference on Dietary and Physical Activity, Assessment Methods (ICDAM), Washington, DC, Jun 2009
- Invited Keynote: Persuasion, Sensors, and Everyday Life: Some Challenges, The Fourth International Conference on Persuasive Technology, Claremont, CA, Apr 2009
- Invited Talk: Science Meeting on Physical Activity and Substance Abuse, National Institute of Drug Abuse, National Institutes of Health, Bethesda, MD, Jun 5-6, 2008
- Invited Talk: Emerging Mobile Technologies for Health Monitoring, In session: New Technologies for Energy Balance Measurement and Intervention Research, Food and Nutrition Conference and Expo (FNCE), Philadelphia, PA, Oct 2, 2007
- Invited Talk: Using Technology to Support Preventive Care Outside of the Hospital, HomeCentric Industrial Liaison Conference, Cambridge, MA, Sep 25, 2007
- Instructor: 3rd IEEE-EMBS International Summer School and Symposium on Medical. Devices and Biosensors, Boston, MA, Sep 4-5, 2006
- Create New Business Models by Making Health Fun, Healthcare Unbound: A Conference & Exhibition on the Convergence of Consumer and Healthcare Technologies, Boston, MA, Jul 17-18, 2006
- Keynote: The Goal: Smart People, Not Smart Homes, International Conference on Smart Homes & Beyond (ICOST 2006), Belfast, UK, Jun 2006.
- Invited Talk: Using Ubiquitous Computing Technology to Create Smart People, Not Smart Homes, Duke University, Durham, NC, Apr 10, 2006
- Using a Live-In Laboratory to Study Novel Proactive Health Technologies, Distributed Diagnostics and Home Healthcare Conference, Washington, DC, Apr 3, 2006.
- Invited Talk: The PlaceLab, Harvard University AI Group, Cambridge, MA, Mar 16, 2006
- Honorary Gilbreth Lecture: Ubiquitous Computing Technologies to Encourage Aging in Place, National Academy of Engineering Annual Meeting, Washington, DC, Oct 9, 2005
- Invited Demonstration of Technology: Wearable and Home-Based Sensors to Foster Independence, National Commission for Quality Long-term Care, Washington, DC, Jul 22, 2005.
- Consumer-Based Health Tracking Using Sensor-Enabled Homes and Phones, Smart Homes and Smart Phones: Emerging Clinical and Business Models, Boston, MA, Jul 12, 2005
- Keynote Address: Proactive Health Systems for the Home Using Ubiquitous and Wearable Computing, Healthcare Unbound: A Conference & Exhibition on the Convergence of Consumer and Healthcare Technologies, Boston, MA, Jul 11-12, 2005
- Tools for Studying and Developing Context-Aware, Proactive Health Systems for the Home, Intel Corporation, Hillsboro, OR, Apr 9, 2005
- Innovative Technology to Advance eHealth Measurement and Methods, Critical Issues in eHealth Research Conference, Sponsored by the National Cancer Institute, Bethesda, MD, Jun 9-10, 2005
- Real-Time, Automatic Activity Recognition from Accelerometers: Challenges and Health Applications, University of Massachusetts, Amherst, MA, Mar 21, 2005

- Tools for Studying and Developing Just-in-Time Proactive Health Technologies, Stanford School of Medicine, Feb 9, 2005
- Tools for Studying and Developing Context-Aware Systems for the Home, Intel Research Berkeley, Feb 8, 2005
- Ubiquitous Computing Technologies to Encourage Aging in Place, Japan-America Frontiers of Engineering Symposium (Sponsored, in part, by the National Academy of Engineering), Keihanna, Japan, Nov 2004
- Panel: Video Visions of the Future: A Critical Review, With Eric Bergman, Arnold Lund, Hugh Dubberly, Bruce Tognazzini, CHI 2004, Vienna Austria, Apr 2004
- Keynote Address: Ubiquitous Computing Technologies to Encourage Aging in Place Healthcare Unbound: A Conference & Exhibition on the Convergence of Consumer and Healthcare Technologies, Cambridge, MA, Jul 8-9, 2004
- Tools for Studying and Developing Context-Aware Systems for the Home, IBM Research, Yorktown, NY, May 24, 2004
- Technology Demonstration, Center for Aging Services Technologies (CAST) Congressional Demo, Washington, DC, Mar 2004
- Technological Innovations Real-Time Data Capture, National Cancer Institute Working Group Meeting: Capturing Physical Activity and Diet in Real-Time, Arlington, VA, Jan 22, 2004
- Invited talk: Tools for Studying and Motivating Health Behavior Change in Natural Settings, Boston Medical Center, Boston, MA, Dec 17, 2003
- Invited talk: Tools for Studying and Developing Context-Aware Systems for the Home, Boston University, Boston, MA, Nov 6, 2003
- Invited talk: Technological Innovations, The Science of Real-Time Data Capture Self-Reports in Health Research Conference, Charleston, SC, Sep 2003
- Keynote talk: Designing and Evaluating Technology for Supportive Homes, IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Kobe, Japan, Jul 2003
- Invited talk: Preventive Health Care, eHealth Institute's eHealth Developers' Summit, Tempe, Arizona, Nov 2002
- Invited talk: Future Computing Environments and Proactive Health Care, Center for Future Health, University of Rochester, Rochester, NY, Oct 2002
- Invited talk: House_n Living Laboratory, Greater Boston SIGCHI, Boston, MA, Sep 2001
- Invited talk: Designing Perceptually Based Interactive Environments, Brandeis University, Waltham, MA, Mar 1999
- Invited talk: Adaptive Interfaces Entrepreneurial Workshop Case Presentation, The Harvard Cyberposium, Cambridge, MA, Feb 1998
- Invited talk: Sports and Technology: Dynamic Scene Understanding, The National Institute of Sport and Physical Education, Campus Olympique, Paris, France, Jun 1996

SERVICE: INVITED WORKSHOP PARTICIPATION

- Invited Speaker and Demo, UCSF Outreach Event and BD2K Consortium PI Meeting: Crowdsourcing & Interactive Digital Media, San Francisco, CA, Mar 2018
- Invited Expert, Computing Community Consortium and National Science Foundation's Computing Visions 2025 Workshop, Arlington, VA, Jan 22-23, 2015
- Analytics Panel Expert, Computing Community Consortium and National Science Foundation's Extensible Distributed Systems Workshop, Arlington, VA, Jan 21-22, 2015

- Invited Expert Panelist, Office of Disease Prevention (ODP), National Institutes of Health Workshop on "Physical Activity and Disease Prevention Research Gaps and Goal-Setting: How Do We Get More People Moving More?" Bethesda, MD, Dec 2012
- Invited Expert Participant, National Cancer Institute Workshop on Emotion and Stress, Washington, DC, Apr 2012
- Invited Panel Speaker, Workshop on Interactive Systems in Healthcare, Washington, DC, Oct 22, 2011
- Invited session moderator, CIMIT Innovation Workshop, Massachusetts General Hospital, Apr 26, 2011
- Making a Difference: Connecting Innovators in Elder Care, Massachusetts General Hospital Geriatric Medicine Unit and CIMIT, Boston, MA, Jun 2008
- Working Group Conference: "Living Laboratory of Aging," Hebrew SeniorLife / BIDMC, Brookline, MA, 2008
- Home of the Future ... Healthcare Without Walls, CIMIT Senior Advisory Think Tank, Cambridge, MA, 2004
- MGPO Office of the Future, CIMIT, Cambridge, MA, 2004
- MIT/GM HVI Workshop (Vehicle of the Future), Detroit, MI, Oct 2003

SERVICE: ADVISORY BOARDS

- Invited Expert Advisor, Using Technology to Prevent Childhood Obesity" Federal Challenge, Health Resource Service Administration's (HRSA's) Maternal and Child Health Bureau (MCHB) (2018-20)
- Invited Member of the IEEE Computer Society ad hoc Committee on the topic of Digital Health (2019)
- Invited Expert Consultant, Research Coordinating Center for the NIH's Intensive, Longitudinal Health Behavior Network, Penn State, PI: Chow (2018-22)
- Scientific Advisory Board Member and member of "expert team" working group on emerging technologies, Center for Technology and Behavioral Health, Dartmouth University, PI: L. Marsch (2012-16, renewed 2016-21 with roles as advisory consultant for the Core on Emerging Technologies and Data Analytics (PI: Kotz))
- Member of Working Group and External Advisor to the Process of Care Research Branch, National Cancer Institute (2014)
- Expert Working Group member for the Process of Care Research Branch within the Behavioral Research Program in the Division of Cancer Control and Population Sciences, National Institutes of Health (2013-24)
- Expert Advisory Panel Member, National Cancer Institute's Science of Research and Technology branch (2012-14)
- NIH and the National Cancer Institute (NCI) Planning Committee for a Repository for Algorithm Development for Ambulatory Research (RADAR) (2012-14)
- Steering Committee Member, European research project: UBhave Project: Ubiquitous and social computing for positive behaviour change, PI: Y. Yardley, U. of Southampton. (2011-15)