

# Tanzeem Choudhury

Address: Computing and Information Science      Phone: (607) 255-6979  
Cornell University                                      Fax: (607) 255-5196  
118 Gates Hall    Email: tanzeem.choudhury@cornell.edu  
Ithaca, NY 14853    WWW: <http://www.cs.cornell.edu/~tanzeem>

## Educational Background

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Ph.D., Media Lab, Massachusetts Institute of Technology                                      February 2004  
Committee: Alex Pentland (advisor), Thomas Allen (MIT Sloan), Michael Kearns (UPenn)  
Thesis: *Sensing and Modeling Human Networks*

Master of Science, Media Lab, Massachusetts Institute of Technology                                      September 1999  
Committee: Alex Pentland (advisor), Rosalind Picard (MIT), Nancy Etcoff (Harvard)  
Thesis: *FaceFacts: Study of Facial Features for Understanding Expressions*  
GPA: 5.0/5.0

Bachelor of Science, University of Rochester    May 1997  
Advisor: Murat Tekalp  
Thesis: *Face and Facial Feature Extraction and Tracking in Video Sequences*  
Major: Electrical Engineering  
Minors: Mathematics, Applied Economics  
GPA: 4.0/4.0

## Employment History

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Associate Professor    July 2011 – present  
Department of Information Science  
Field Member: Computer Science, Information Science  
Cornell University, Ithaca, NY

Assistant Professor    April 2008 – June 2011  
Department of Computer Science  
Dartmouth College, Hanover, NH

Member of Research Staff    September 2003 – January 2008  
Intel Research Seattle, Seattle, WA

Research Assistant    September 1997-August 2003  
Media Laboratory  
Massachusetts Institute of Technology  
Cambridge, MA

Summer Intern    June 1999 - August 1999  
Compaq Computer Corporation, Cambridge, MA  
(Supervisor: Jim Rehg)

## Honors and Awards

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- Kavli Fellow, National Academy of Sciences, 2011
- PopTech Science and Public Leadership Inaugural Fellow, 2010
- TED Fellow, 2009
- Presented at the US Senate/Capitol Hill. NSF hosted event on Cyber-Physical Systems – Smart Technology. Smarter World. July 2009
- National Science Foundation Faculty Early Career Development Award (NSF CAREER), 2009
- MIT Technology Review's TR35 for 2008: Top 35 Innovators under 35
- Electrical Engineering Faculty Prize, University of Rochester, 1997
- 1<sup>st</sup> in graduating class, School of Engineering and Applied Sciences, U. of Rochester, 1997
- Robert L. Wells Prize for highest ranking engineering student for demonstrated excellence in both engineering and social sciences, University of Rochester, 1996
- Member of Phi Beta Kappa 1996 - present
- Member of Tau Beta Pi 1995 – present
- Honor Prize for excellence in physics, 1995

## Publications

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### Refereed Journal and Magazine Papers

- [J.1] Mashfiqui Rabbi, Mi Zhang, Angela Pfammatter, Bonnie Spring, and Tanzeem Choudhury. Automated Personalized Feedback for Physical Activity and Dietary Behavior Change with Smartphones: Development and a Randomized Controlled Trial (in press). *Journal of Medical Internet Research*.
- [J.2] Marianne Schmid Mast, Daniel Gatica-Perez, Denise Frauendorfer, Laurent Nguyen, and Tanzeem Choudhury. Social sensing for psychology: Automated interpersonal behavior assessment (in press). *Current Directions in Psychological Science*.
- [J.3] Jamie Snyder, Eric Baumer, Stephen Volda, Phil Adams, P., Megan Halpern, Tanzeem Choudhury, and Gay, G. Making Things Visible: Opportunities and Tensions in Visual Approaches for Design Research. Appears in *Human-Computer Interaction*, Volume 29, Issue 5-6, June 2014.
- [J.4] Mark Matthews, Saeed Abdullah, Geri Gay, and Tanzeem Choudhury. Tracking Mental Well-Being: Striking the Right Balance between Rich Sensing and Patient Needs. Appears in *IEEE Computer – special issue on Aware Computing*, April 2014.
- [J.5] Nicholas Lane, Ye Xu, Hong Lu, Shaohan Hu, Tanzeem Choudhury, Andrew Campbell, and Feng Zhao. Community Similarity Networks. Appears in *the Journal of Personal and Ubiquitous Computing*, Volume 18, Issue 2, Pages 355-368, February 2014.
- [J.6] Andrew Campbell and Tanzeem Choudhury. From Smart Phones to Cognitive Phones. Appears in *IEEE Pervasive*, Volume 11, Issue 3, Pages 7-11, July-September 2012.
- [J.7] Nicholas Lane, Ye Xu, Hong Lu, Shane Eisenman, Tanzeem Choudhury, and Andrew Campbell. Exploiting Social Networks for Large-scale Modeling of Human Behavior. Appears in *IEEE Pervasive – Special Issue on Large-scale Opportunistic Sensing*, Volume 10, Issue 4, Pages 45-53, October 2011.
- [J.8] Ethan Berke, Tanzeem Choudhury, Shahid Ali, and Mashfiqui Rabbi. Objective Sensing of Activity and Sociability: Mobile Sensing in the Community. Appears in the *Annals of Family Medicine*, Volume 9, Issue 4, Pages 344-350, July 2011.

- [J.9] Danny Wyatt, Tanzeem Choudhury, James Kitts, and Jeff Bilmes. Inferring Colocation and Conversation Networks from Privacy-sensitive Audio with Implications for Computational Social Science. Appears in *ACM Transactions on Intelligent Systems and Technology*, Volume 2, Issue 1, January 2011.
- [J.10] Nic Lane, Emiliano Mulizzo, Hong Lu, Daniel Peebles, Tanzeem Choudhury and Andrew Campbell. A Survey of Mobile Phone Sensing. Appears in *IEEE Communications*, Volume 48, Issue 9, Pages 140-150, September 2010.
- [J.11] Beverly Harrison, Sunny Consolvo, and Tanzeem Choudhury. Using Multi-Modal Sensing for Human Activity Modeling in the Real World. Appears in the *Handbook of Ambient Intelligence and Smart Environments*. Part IV, Pages 463-478, Springer Verlag 2009.
- [J.12] Tanzeem Choudhury, Gaetano Borriello, *et.al.* The Mobile Sensing Platform: An Embedded Activity Recognition System. Appears in *IEEE Pervasive - Special Issue on Activity-Based Computing*, Volume 7, Issue 2, Pages 32-41, April-June 2008.
- [J.13] Tanzeem Choudhury, Matthai Philipose, Danny Wyatt and Jonathan Lester. Towards Activity Databases: Using Sensors and Statistical Models to Summarize People's Lives. Appears in *IEEE Data Engineering Bulletin*, Vol. 29 No. 1, Pages 48-59, March 2006.
- [J.14] Alex Pentland, Tanzeem Choudhury, Nathan Eagle and Push Singh. Human Dynamics: Computation for Organization. Appears in *Pattern Recognition Letters*, Volume 26, Issue 4, Pages 503-511, March 2005.
- [J.15] Alex Pentland and Tanzeem Choudhury. Face Recognition for Smart Environments. Appears in *IEEE Computer - Special Issue on Biometrics*, Volume 33, Issue 2, Pages 50-55, February 2000.

#### **Refereed Conference Papers**

[Acceptance rates included when available (if <45%) or paper category (oral/poster) specified if acceptance rate not available]

- [C.1] Saeed Abdullah, Elizabeth L. Murnane, Jean M.R. Costa, and Tanzeem Choudhury. 2015. Collective Smile: Measuring Societal Happiness from Geolocated Images. Appears in the Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15). (Acceptance rate 28%)
- [C.2] Saeed Abdullah, Mark Matthews, Elizabeth Murnane, Geri Gay, and Tanzeem Choudhury. Circadian Computing: How "Early to Bed and Early to Rise" Makes Some of Us Unhealthy and Sleep Deprived. Appears in the Proceedings of Ubicomp 2014. (Acceptance rate 20%)
- [C.3] Tauhidur Rahman, Alexander Adams Erin Carroll, Bobby Zhou, Huaishu Peng, Mi Zhang and Tanzeem Choudhury. BodyBeat: A Mobile System for Sensing Non-Speech Body Sounds. Appears in the Proceedings of MobiSys 2014. (Acceptance rate 13%)
- [C.4] Phil Adams, Mashfiqui Rabbi, Tauhidur Rahman, Mark Matthews, Amy Volda, Geri Gay, Tanzeem Choudhury, and Stephen Volda. Towards Personal Stress Informatics: Comparing Minimally Invasive Techniques for Measuring Daily Stress in the Wild. Appears in the Proceedings of Pervasive Health 2014. (Acceptance rate 26%)
- [C.5] Tauhidur Rahman, Mi Zhang, Stephen Volda, and Tanzeem Choudhury. Towards Accurate Non-Intrusive Recollection of Stress Levels Using Mobile Sensing and Contextual Recall. Appears in the Proceedings of Pervasive Health 2014. (Acceptance rate 26%)
- [C.6] Ye Xe, Mu Lin, Hong Lu, Giuseppe Cardone, Nicholas D. Lane, Zhenyu Chen, Andrew Campbell, Tanzeem Choudhury, Preference, Context and Communities: A Multi-faceted Approach to Predicting Smartphone

- App Usage Patterns. Appears in the Proceedings of the 17th International Symposium on Wearable Computers (ISWC'13), September 2013. (Acceptance rate 23%)
- [C.7] Chen Zhenyu, Nicholas Lane, Guiseppe Cardone, Mu Lin, Tanzeem Choudhury, and Andrew Campbell. Unobtrusive Sleep Monitoring Using Smartphones. Appears in the Proceedings of Pervasive Health 2013. (Acceptance rate 25%)
- [C.8] Mu Lin, Nicholas Lane, Mashfiqui Rabbi, Xiaochao Yang, Hong Lu, Giuseppe Cardone, Shahid Ali, Afsaneh Doryab, Ethan Berke, Andrew Campbell, and Tanzeem Choudhury. A Scalable Approach for Multidimensional Wellbeing Monitoring: Community and Energy Based Adaptation of Mobile Sensing and Feedback. Appears in the *Proceedings of Wireless Health 2012*, October 2012. (Acceptance rate 24%)
- [C.9] Hong Lu, Mashfiqui Rabbi, Gokul Chittaranjan, Denise Frauendorfer, Marianne Schmidt, Andrew Campbell, Daneil Gatica-Perez, and Tanzeem Choudhury. StressSense: Detecting Stress in Unconstrained Acoustic Environments using Smartphones. Appears in the *Proceedings of Ubicomp 2012*, September 2012. (Acceptance rate 19.3%)
- [C.10] Saeed Abdullah, Nicholas Lane, and Tanzeem Choudhury. Towards Population Scale Activity Recognition: A Scalable Framework for Handling Data Diversity. Appears in the *Proceedings of AAAI 2012*, JULY 2012. (Acceptance rate 26%)
- [C.11] Mashfiqui Rabbi, Shahid Ali, Tanzeem Choudhury, and Ethan Berke. Passive and In-situ Assessment of Mental and Physical Well-being using Mobile Sensors. Appears in the *Proceedings of Ubicomp 2011*, September 2011. (Acceptance rate 16.6%)
- [C.12] Nicholas Lane, Ye Xu, Hong Lu, Shaohan Hu, Tanzeem Choudhury, Andrew Campbell, and Feng Zhao. Enabling Large-scale Human Activity Inference on Smartphones using Community Similarity Networks. Appears in the *Proceedings of Ubicomp 2011*, September 2011. (Acceptance rate 16.6% - best paper nominee 5/300)
- [C.13] Nicholas D. Lane, Tanzeem Choudhury, Andrew Campbell, Mashfiqui Mohammad, Mu Lin, Xiaochao Yang, Afsaneh Doryab, Hong Lu, Shahid Ali and Ethan Berke, BeWell: A Smartphone Application to Monitor, Model and Promote Wellbeing, Pervasive Health 2011-- 5th International ICST Conference on Pervasive Computing Technologies for Healthcare, May 2011. (Acceptance rate less than 30%)
- [C.14] Hong Lu, Jun Yang, Zhigang Lu, Nic Lane, Tanzeem Choudhury, and Andrew Campbell. The Jigsaw Continuous Sensing Engine for Mobile Phone Applications. Appears in the *Proceedings of Sensys 2010*, pages 71-74, November 2010. (Acceptance rate 17%)
- [C.15] Danny Wyatt, Tanzeem Choudhury, and Jeff Bilmes. Discovering Long Range Properties of Social Networks with Multi-Valued Time-Inhomogeneous Models. Appears in the *Proceedings of AAAI 2010*, pages 630-636, July 2010. (Acceptance rate 26%. Poster highlight. According to AAAI: "posters are being used to highlight exceptional papers, ones that merit attention in addition to oral presentation.")
- [C.16] Daniel Peebles, Hong Lu, Nic Lane, Tanzeem Choudhury, and Andrew Campbell. Community-Guided Learning: Exploiting Mobile Sensor Users to Model Human Behavior. Appears in the *Proceedings AAAI 2010*, pages 1600-1606, July 2010. (Acceptance rate 26%)
- [C.17] Emiliano Miluzzo, Cory Cornelius, Ashwin Ramaswamy, Tanzeem Choudhury, Zhigang Liu, Andrew Campbell. Darwin Phones: The Evolution of Sensing and Inference on Mobile Phones. Appears in the *Proceedings of MobiSys 2010*, pages 5-20, June 2010. (Acceptance rate 20%)

- [C.18] Janani Sriram, Minho Shin, Tanzeem Choudhury, and Dave Kotz. Activity-Aware ECG-based Patient Authentication for Remote Health Monitoring. Appears in the *Proceedings of ICMI-MLMI 2009*, pages 297-304, November 2009. (Acceptance rate 36%)
- [C.19] Hong Lu, Wei Pan, Nic Lane, Tanzeem Choudhury, and Andrew Campbell. Sound Sense: Scalable Sound Sensing for People-Centric Applications on Mobile Phones. Appears in the *Proceedings of Mobisys 2009*, pages 168-171, June 2009. (Acceptance rate 20%)
- [C.20] Predrag Klasjna, Sunny Consolvo, Tanzeem Choudhury, and Richard Beckwith. Exploring Privacy Concerns about Personal Sensing. Appears in the *Proceeding of Pervasive 2009*, pages 176-183, May 2009. (Acceptance rate: 18%)
- [C.21] Danny Wyatt, Tanzeem Choudhury, Jeff Bilmes, James Kitts. Towards Automated Social Analysis of Situated Speech Data. Appears in the *Proceedings of Ubicomp 2008*, pages 168-171, September 2008. (Acceptance rate: 19%)
- [C.22] Danny Wyatt, Tanzeem Choudhury, and Jeff Bilmes. Learning Hidden Curved Exponential Random Graph Models from Situated Speech Data. Appears in the *Proceedings of AAAI 2008*, pages 732-738, July 2008. (Acceptance rate: 24%)
- [C.23] Maryam Mahdavian and Tanzeem Choudhury. Fast and Scalable Training of Semi-Supervised CRFs with Application to Activity Recognition. Appears in the *Proceedings of NIPS 2007*, pages 977-984, December 2007. (Acceptance rate: 22%)
- [C.24] Jianxin Wu, Adebola Osuntogun, Tanzeem Choudhury, Matthai Philipose, Jim Rehg. A Scalable Approach to Activity Recognition Based on Object Use. Appears in the *Proceedings of ICCV 2007*, pages 1-8, October 2007. (Acceptance rate: 23%)
- [C.25] Danny Wyatt, Tanzeem Choudhury, and Jeff Bilmes. Conversation Detection and Speaker Segmentation in Privacy Sensitive Situated Speech Data. Appears in the *Proceedings of Interspeech 2007*, pages 586-589, August 2007.
- [C.26] Danny Wyatt, Tanzeem Choudhury, and Henry Kautz. Capturing Spontaneous Conversation and Social Dynamics: A Privacy-Sensitive Data Collection Effort. Appears in the *Proceedings of International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2007)*, pages IV.213-IV.216, April 2007.
- [C.27] Danny Wyatt, Tanzeem Choudhury, Jeff Bilmes, and Henry Kautz. A Privacy Sensitive Approach to Modeling Multi-Person Conversations. Appears in the *Proceedings of International Joint Conference on Artificial Intelligence (IJCAI 2007)*, pages 1769-1775, January 2007. (Acceptance rate: 34%)
- [C.28] Lin Liao, Tanzeem Choudhury, Dieter Fox, and Henry Kautz. Training Conditional Random Fields using Virtual Evidence Boosting. Appears in the *Proceedings of International Joint Conference on Artificial Intelligence (IJCAI 2007)*, pages 2530-2535, January 2007. (Acceptance rate: 34%)
- [C.29] Shiaokai Wang, William Pentney, Ana-Maria Popescu, Tanzeem Choudhury and Matthai Philipose. Commonsense-based Joint Training of Human Activity Recognizers. Appears in the *Proceedings of International Joint Conference on Artificial Intelligence (IJCAI 2007)*, pages 2237-2242, January 2007. (Acceptance rate: 34%)
- [C.30] Timothy Sohn, Alex Varshavsky, Anthony Lamarca, Mike Chen, Tanzeem Choudhury, Ian Smith, Sunny Consolvo, Jeffrey Hightower, William Griswold, and Eyal de Lara. Mobility Detection Using Everyday GSM Traces. Appears in the *Proceedings of Ubicomp 2006*, pages 212-224, September 2006. (Acceptance rate: 13%)

- [C.31] Jonathan Lester, Tanzeem Choudhury, and Gaetano Borriello. A Practical Approach to Recognizing Physical Activities. Appears in the *Proceedings of Pervasive 2006*, pages 1-16, May 2006. (Acceptance rate: 13%)
- [C.32] Emmanuel Munguia-Tapia, Tanzeem Choudhury, and Matthai Philipose. Building Reliable Activity Models using Hierarchical Shrinkage and Mined Ontology. Appears in the *Proceedings Pervasive 2006*, pages 17-32. (Acceptance rate: 13%)
- [C.33] Danny Wyatt, Matthai Philipose and Tanzeem Choudhury. Unsupervised Activity Recognition using Automatically Mined Common Sense. Appears in the *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI 2005)*, pages 21-27, July 2005. (Acceptance rate: 28%)
- [C.34] Jonathan Lester, Tanzeem Choudhury, Nicky Kern, Gaetano Borriello and Blake Hannaford. A Hybrid Discriminative-Generative Approach for Modeling Human Activities. Appears in the *Proceedings of International Joint Conference on Artificial Intelligence (IJCAI 2005)*, pages 776-782, July 2005. (Acceptance rate: 18%)
- [C.35] Tanzeem Choudhury and Sumit Basu. Modeling Conversational Dynamics as a Mixed Memory Markov Process. Appears in the *Advances of Neural Information Processing Systems 17 (NIPS 2004)*, pages 281-288, MIT Press, 2005. (Acceptance rate: 25%)
- [C.36] Tanzeem Choudhury and Alex Pentland, Characterizing Social Networks using the Sociometer. Appears in the *Proceedings of the North American Association of Computational Social and Organizational Science*. June 2004.
- [C.37] Tanzeem Choudhury and Alex Pentland, Sensing and Modeling Human Networks using the Sociometer. Appears in the *Proceeding of the International Conference on Wearable Computing*, pages 216-222, October 2003. (oral)
- [C.38] Tanzeem Choudhury, Brian Clarkson, Sumit Basu, and Alex Pentland, Learning Communities: Connectivity and Dynamics of Interacting Agents. Appears in the *Proceedings of the International Joint Conference on Neural Networks*, pages 2797-2802, July 2003. (oral)
- [C.39] Tanzeem Choudhury, Jim Rehg, Vladimir Pavlovic, and Alex Pentland. Boosting and Structure Learning in Dynamic Bayesian Networks for Audio-Visual Speaker Detection. Appears in the *Proceedings of International Conference on Pattern Recognition*, pages 789-792, August 2002. (Acceptance rate: 20%)
- [C.40] Tanzeem Choudhury and Alex Pentland. Motion Field Histograms for Robust Modeling of Facial Expressions. Appears in the *Proceedings of International Conference on Pattern Recognition*, pages 2929-2932, September 2000.
- [C.41] Tanzeem Choudhury, Brian Clarkson, Tony Jebara and Alex Pentland. Multimodal Person Recognition using Unconstrained Audio and Video. In *Second Conference on Audio- and Video-based Biometric Person Authentication '99 (AVBPA '99)*, pages 176-181. (Acceptance rate: 30%)

#### **Refereed Workshop Papers**

- [W.1] Stephen Volda, Tanzeem Choudhury, Geri Gay, Mark Matthews, Phil Adams, Mashfiqui Rabbi, JP Pollak, Mengxi Chi, Matthew Green, Andrew Campbell, Nic Lane, and Hong Lu. Personal Informatics Can Be Stressful: Collecting, Reflecting, and Embedding Stress Data in Personal Informatics. To Appear in the Proceeding of Personal Informatics Workshop, CHI 2013
- [W.2] Andrew T. Campbell, Tanzeem Choudhury, Shaohan Hu, Hong Lu, Matthew Mukerjee\*, Mashfiqui Rabbi, and Rajeev Raizada. NeuroPhone: Brain-Mobile Phone Interface using a Wireless EEG Headset. Appears in the *Proceedings of MobiHeld 2010*. (\*contact author, authors listed alphabetically)

- [W.3] Danny Wyatt, Tanzeem Choudhury, and Jeff Bilmes. Dynamic Multi-Valued Network Models for Predicting Face-to-Face Conversations. Appears in the *NIPS Workshop on Analyzing Networks and Learning with Graphs*. December 2009.
- [W.4] Mirco Musolesi, Emiliano Miluzzo, Nicholas Lane, Shane Eisenman, Tanzeem Choudhury, and Andrew Campbell. The Second Life of a Sensor: Integrating Real-world Experience in Virtual Worlds using Mobile Phones. Appears in the *Proceedings of the Fifth Workshop on Embedded Networked Sensors (HotEmNets 2008)*. June 2008.
- [W.5] Jonathan Lester, Tanzeem Choudhury, Gaetano Borriello, Sunny Consolvo, James Landay, Kate Everitt and Ian Smith. Sensing and Modeling Activities to Support Physical Fitness. In the *Workshop Proceedings of Monitoring, Measuring and Motivating Exercise: Ubiquitous Computing to Support Fitness*. Ubicomp 2005.
- [W.6] Tanzeem Choudhury, Jonathan Lester and Gaetano Borriello. Assessing Wellness by Sensing Everyday Activities and Interactions. In the *Workshop Proceedings HCI Challenges in Health Assessment, Conference on Human Factors in Computing Systems (CHI)*, April 2005.
- [W.7] Tanzeem Choudhury and Alex Pentland. Modeling Face-to-Face Communication using the Sociometer. In the *Workshop Proceedings of Supporting Social Interaction and Face-to-face Communication in Public Spaces*. Ubicomp 2003.
- [W.8] Tanzeem Choudhury and Alex Pentland, The Sociometer: A Wearable Device for Understanding Human Networks. In the *Workshop Proceedings of Computer Supported Cooperative Work (Workshop: Ad hoc Communications and Collaboration in Ubiquitous Computing Environments)*, November 2002.
- [W.9] Sumit Basu, Tanzeem Choudhury, Brian Clarkson and Alex Pentland. Towards Measuring Human Interactions in Conversational Settings. Appears in the *Proceedings of Computer Vision and Pattern Recognition (Cues in Communication)*, December 2001.

#### **Refereed Workshop Abstracts**

- [A.1] Danny Wyatt, Tanzeem Choudhury, Henry Kautz, and James Kitts. Creating Dynamic Social Network Models from Sensor Data. Presented at: International Sunbelt Social Network Conference. April 2006.
- [A.2] Jonathan Lester, Tanzeem Choudhury, and Gaetano Borriello. Choosing the Right Modalities and Features for Activity Recognition. Presented at: NIPS Workshop on Multi-modal Signal Processing, NIPS 2004.
- [A.3] Sumit Basu and Tanzeem Choudhury. Learning Relationships from Conversational Patterns. Presented at: Snowbird Learning Workshop, April 2004.
- [A.4] Tanzeem Choudhury and Alex Pentland. The Sociometer: A Wearable Device for Learning Human Networks. Presented at: Snowbird Learning Workshop.
- [A.5] Tanzeem Choudhury and Alex Pentland. The Sociometer: A Wearable Device for Understanding Human Networks. Presented at: International Sunbelt Social Network Conference. February 2003.
- [A.6] Tanzeem Choudhury, Brian Clarkson, Sumit Basu and Alex Pentland. Learning Human Dynamics and Interactions. Presented at: Snowbird Learning Workshop, April 2002.
- [A.7] Tanzeem Choudhury, Jim Rehg, Vladimir Pavlovic, and Alex Pentland. Multimodal Speaker Detection using Boosted Dynamic Bayesian Networks. Presented at: Snowbird Learning Workshop, April 2001.

## Theses

- [T.1] Tanzeem Choudhury. Sensing and Modeling Human Networks. PhD thesis, Massachusetts Institute of Technology, September 2003.
- [T.2] Tanzeem Choudhury. FaceFacts - Study of Facial Features for Understanding Expressions. Master's thesis, Massachusetts Institute of Technology, August 1999.
- [T.3] Tanzeem Choudhury. Face and Facial Feature Extraction and Tracking in Video Sequences. Bachelor's Thesis, University of Rochester, May 1997.

## Invited Talks

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- Invited keynote speech at International Society for Bipolar Disorder 2015 Annual Conference, *Tracking behavioral symptoms of bipolar disorder using automated sensing and delivering personalized interventions using smartphones*, June 2015
- Invited talk at NAE's Convocation of Engineering Professional Societies, April 2015
- Invited talk at Wellness, Fulfillment and Good Health Panel, Cornell Charter Day Celebration, April 2015
- Invited presentation on "Invisible Behavior Change" at the Computing Vision 2025: Interacting with the computers all around us (NSF and Computing Research Association (CRA), May 2014.
- Invited talk at Cognitive Science Dinner at University of Rochester, *Using Smartphones to Sense, Assess, and Improve Well-being*, November 2014
- Invited [talk](#) at TEDxDhaka, November 2014
- Invited talk at MobiSys workshop on Physical Analytics, June 2014
- Association for Psychological Science Annual Conference, themed Program: Big Data: Understanding Patterns of Human Behavior, *Using Smartphones to Sense, Assess, and Improve Well-being*, May 2014
- University of Michigan, Department of Statistic Seminar Series, *Using Smartphones to Sense, Assess, and Improve Well-Being*, April 2014
- NIH workshop on Innovative Study Designs and Methods for Developing, Testing and Implementing Behavioral Interventions, *Creative new behavioral interventions in the making*, April 2014
- Northwestern University, Center for Behavioral Intervention Seminar Series, *Using Smartphones to Sense, Assess, and Improve Well-Being*, April 2014
- University of California, San Diego, CSE Colloquium, *Using Smartphones to Sense, Assess, and Improve Well-Being*, February 2014
- TED Fellows retreat, MoodRhythm, August 2013
- Association for Psychological Science Annual Conference, Smartphone Symposium, *Can Your Mobile Phone Make You Happier*, May 2013
- Ubicomp 2012 Workshop on Situation, Activity and Goal Awareness, Pittsburgh, PA, *Using Smartphones to Sense, Assess, and Improve Well-Being*, September 2012
- Google workshop on the Future of Mobile, Mountain View, CA, *Can Your Mobile Phone Make You Happier*, May 2012
- Dartmouth Institute for Security, Technology and Society: Workshop on Securing IT in Healthcare, Hanover, NH, *Voice Patterns: How can Mobile Phones Improve People's Lives*, May 2012
- The U.S. Kavli Frontiers of Science, Irvine, CA, *Societal Scale Sensing of Human Behavior Using Mobile Phones*, October 2011
- Ubicomp 2011, Beijing, China, Full Day Tutorial on *Building and Deploying Mobile Systems for Activity Recognition*, September 2011
- NIH mHealth Evidence Workshop, NIH Bethesda MD, *Towards Societal Scale Sensing Using Mobile Phones*. August 2011
- NIH mHealth Summer Institute, San Diego, CA, *People-Aware Computing*, June 2011
- Microsoft Research, Redmond, WA, *Spoken Networks: Analyzing face-to-face conversations and how they shape our social connections*, October 2010



- AAIL workshop on Plan, Activity, and Intent Recognition, Atlanta, GA, *Spoken Networks: Analyzing face-to-face conversations and how they shape our social connections*, July 2010
- Max Planck Institute for Software Systems, Saarbrücken, Germany, *Spoken Networks*, June 2010
- Carnegie Mellon University, HCI Seminar, Pittsburgh, PA, *People-Aware Computing*, April 2010
- Cornell University, Department of Information Science Seminar, Ithaca, NY, *Spoken Networks: Analyzing face-to-face conversations and how they shape our social connections*, April 2010
- University of Wisconsin at Madison, Computer Science Seminar, Wisconsin, MA, *Spoken Networks: Analyzing face-to-face conversations and how they shape our social connections*, April 2010
- University of Massachusetts at Amherst, Computer Science Seminar, Amherst, MA, *Spoken Networks: Analyzing face-to-face conversations and how they shape our social connections*, April 2010
- Stony Brook University, Computer Science Seminar, Stony Brook, NY, *People-Aware Computing: Towards Societal Scale Sensing using Mobile Phones*, March 2010
- Johns Hopkins University, Computer Science Seminar, Baltimore, MA, *People-Aware Computing: Towards Societal Scale Sensing using Mobile Phones*, March 2010
- Duke University, Computer Science Seminar, Durham, NC, *People-Aware Computing: Towards Societal Scale Sensing using Mobile Phones*, March 2010
- University of Michigan, Information School Seminar, Ann Arbor, MI, *Spoken Networks*, February 2010
- University of Chicago, Computer Science Seminar, Chicago, IL, *Spoken Networks*, February 2010
- Dartmouth Hitchcock Medical Center, Lebanon, NH, *People-Aware Computing*, November 2009
- National Science Foundation Workshop on Future Directions in Networked Sensing Systems, Washington, DC, *Toward Societal Scale Sensing Using Mobile Phones*, November 2009
- UW/MSR Summer Institute on Unraveling the Technological Knot in homes, Semiahmoo, WA, *Empowering Users by Building Transparent Context-Models*, July 2009
- Microsoft Research New England, Cambridge, MA, *Inferring Social Networks Automatically from Sensor Data*, July 2009
- Nokia Palo Alto Research Lab, Palo Alto, CA, *Learning Models of Human Activities and Interactions using Multi-Modal Wearable Sensors*, March 2009
- University of Vermont, Burlington, VT, *Inferring Social Networks Automatically from Sensor Data*, March 2009
- Harvard University, Kennedy School of Government, Cambridge, MA, *Using Sensors to Make Sense of People: Inferring the Micro and Macro Level Properties of Social Networks from Mobile Sensor Data*, March 2009
- University of Massachusetts, Amherst, MA, *Learning Hidden Curved Exponential Random Graph Models from Situated Speech Data*, February 2009
- Dartmouth College, Hanover, NH – Psychology and Brain Sciences Department's Social Brain Sciences Talk Series, *Inferring Social Networks Automatically from Sensor Data*, January 2009
- EmTech '08 Emerging Technologies conference at MIT – From the Labs: Cool Female Innovations, invited panelist, *Using Sensors to Make Sense of People*, September 2008
- EmTech '08 Emerging Technologies conference at MIT – Connecting and Collaborating through IT, invited panelist, *Using Sensors to Make Sense of People*, September 2008
- Microsoft Research, Redmond, WA, *Learning Models of Human Activities and Interactions*, September 2007.
- Georgia Institute of Technology, School of Interactive Computing, Atlanta, GA, *Sensing and Modeling Human Activities and Interactions in Everyday Environments*, February 2007.
- University of Michigan, CS Colloquium, Ann Arbor, MI, *Sensing and Modeling Human Activities and Interactions in Everyday Environments*, March 2007.
- Dartmouth College, CS Colloquium, Hanover, NH, *Sensing and Modeling Human Activities and Interactions in Everyday Environments*, February 2007.
- University of California, Santa Cruz, ECE Colloquium, Santa Cruz, CA, *Sensing and Modeling Human Activities and Interactions in Everyday Environments*, February 2007.

- University of Washington, Computer Science Colloquium, Seattle, WA, *Sensing and Modeling Human Activities and Interactions in Everyday Environments*, January 2007.
- NIPS workshop on User Adaptive Systems, Whistler, B.C., *Modeling Human Activities and Interactions from Multi-modal Signals*, December 2006.
- University of Washington, Database Group, Seattle, WA, *Towards Activity Databases: Using Sensors and Statistical Models to Summarize People's Lives*, June 2006.
- Georgia Institute of Technology, College of Computing, Atlanta, GA, *Modeling Human Behavior from Multi-modal Signals*, April 2006
- Georgia Institute of Technology, College of Computing, Atlanta, GA, *Creating Dynamic Social Network Models from Sensor Data*, April 2006
- University of Washington, Information Design Lab Seminar, Seattle, WA, *Modeling Human Behavior from Multi-modal Signals*, February 2006
- MIT Media Laboratory, Cambridge, MA, *Modeling Human Behavior from Multi-modal Signals*, September 2005
- University of Washington, Computer Science Colloquium, Seattle, WA, *The Next Stage in the Development of Context-Aware Applications*, May 2005.
- National Science Foundation, Arlington, VA, *Creating Dynamic Social Network Models from Sensor Data*, December 2004.
- University of Washington Design Machine Group Seminar, Seattle, WA, *Creating Dynamic Social Network Models from Sensor Data*, November 2004.
- University of Washington AI Seminar, Seattle, WA, *Creating Dynamic Social Network Models from Sensor Data*, October 2004.
- Intel Research Seminar, Berkeley, CA, *Sensing and Modeling Human Networks*, November 2003.
- IBM Watson Research Center Seminar, Yorktown Heights, NY, *Sensing and Modeling Human Networks*, October 2003.
- Microsoft Research, Redmond, WA, *Sensing and Modeling Human in Unconstrained Environments*, March 2003.
- Intel Research, Seattle, WA, *Sensing and Modeling Human in Unconstrained Environments*, May 2003.
- Hewlett Packard Labs, Palo Alto, CA, *Sensing and Modeling Human Networks*, May 2003.
- Accenture Technology Labs, Palo Alto, CA, *Sensing and Modeling Human Networks*, May 2003.
- International Joint Conference on Neural Networks workshop on Biometrics, *Real-time Multimodal Person Recognition using Unconstrained Audio and Video*, July 1999.

## Invited Participation

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- Panel presenter, NSF-NIH Workshop on mHealth, Panel- Sensor-triggered personalized mHealth intervention, October 2014
- Annual Psychological Science Conference, Themed program on Big Data: Understanding Patterns of Human Behavior, May 2014
- Visioning 2025: Creating Visions for Computing Research, May 2014
- Andreessen Horowitz Academic Roundtable, September 2013
- HealthFoo 2013, Friends of O'Reilly, May 2013
- Panelist: Exploiting Data in Abundance. Symposium on Computing and Health: New Opportunities and Directions organized by Computing Community Consortium, October 2012
- HealthFoo 2012, Friends of O'Reilly, May 2012
- PopTech Conference 2011, Voice Patterns: How can mobile phones improve people's lives?
- Foo Camp 2011, Friends Of O'Reilly, June 2011
- National Science Foundation and the Organization for Economic Cooperation and Development (OECD), Building a Smarter Health and Wellness Future, February 2011
- The National Academies, Public Interface of Science, November 2010
- PopTech Conference, October 2010

- Technology, Design, Entertainment (TED), TEDIndia Conference, November 2009
- National Science Foundation, Workshop on Future Directions in Networked Sensing Systems, Washington, DC, November 2009
- National Academy of Engineering, Frontier's of Engineering, September 2009
- UW/MSR Summer Institute on Unraveling the Technological Knot in homes, July 2009
- FooEast 2009, Friends Of O'Reilly Media and Microsoft, March 2009

## Teaching Experience

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### A. Courses taught

<p><b>IS 4120/6120: Ubiquitous Computing</b>  <b>Information Science Department, Cornell University</b>            Description: This new course introduces students to the field of Ubiquitous Computing for the first time at Cornell. The course highlights various challenges in data collection, representation of computation models for context and behavior recognition, and evaluation. Class discussions and hands on exercises are the focus of this class.</p>	<p>Spring 2015            Spring 2014            Spring 2013</p>
<p><b>IS 4130/6130: Health and Computation</b>  <b>Information Science Department, Cornell University</b>            Description: This course offers students an introduction to the computational, behavioral, and psychological concepts needed to develop the next generation of computing systems that can assess health and provide care. This project-based course will enable students to apply concepts learned towards original research.</p>	<p>Fall 2014            Fall 2013</p>
<p><b>CS 1300/ IS 1300: Introductory Web Programming and Design</b>  <b>Information Science Department, Cornell University</b>            Description: Undergraduate course that covers basic web technologies such as eXtensible HyperText Markup Language (XHTML), Cascading StyleSheets (CSS), server programming using PHP, along with basic graphic design techniques.</p>	<p>Fall 2012            Fall 2011</p>
<p><b>COSC 44 Artificial Intelligence</b>  <b>Computer Science Department, Dartmouth College</b>            Description: Undergraduate course in Artificial Intelligence that covers both classical and statistical AI.</p>	<p>Winter 2011</p>
<p><b>COSC 104 Graduate Artificial Intelligence</b>  <b>Computer Science Department, Dartmouth College</b>            Description: Graduate course in Artificial Intelligence that covers both classical and statistical AI.</p>	<p>Spring 2011            Winter 2010</p>
<p><b>COSC 88/188 Computational Social Science</b>  <b>Computer Science Department, Dartmouth College</b>            Description: Course in Computational Social Science, where ideas from computer science and social science are combined to discover and understand patterns of individual and group behaviors. Investigate challenges in diverse subjects ranging from health, sustainability, national security, and how societies innovate and adapt.</p>	<p>Winter 2010</p>

**COSC 003 Computational Thinking** Spring 2010  
**Computer Science Department, Dartmouth College** Spring 2009

Description: Undergraduate course that introduces various computational problem solving methods in computer science. Topics include cryptography, graph theory, machine learning, and ubiquitous computing.

**COSC 88/188 Community Sensing and Modeling** Winter 2009  
**Computer Science Department, Dartmouth College**

Description: Course on computational techniques for sensing and reasoning about communities. Topics include, distributed sensing, probabilistic relational models, social networks models.

**COSC 88/188 Computational Models of Human Behavior** Fall 2008  
**Computer Science Department, Dartmouth College**

Description: Course that introduces the emerging field of activity-aware Computing -- a multidisciplinary research area that draws from machine learning and AI, machine perception, ubiquitous computing, human computer interaction, as well as psychology and sociology.

**CSE 590MV Machine Learning Graduate Seminar** Spring 2004, 2005  
**Computer Science Department, U. of Washington** Autumn 2004  
Description: Weekly graduate machine learning seminar Winter 2005

**CSE 590A Research in Artificial Intelligence** Autumn 2005  
**Computer Science Department, U. of Washington**  
Description: Graduate seminar on semi-supervised learning

**PHY 121 Mechanics** Fall 1995  
**Teaching Assistant** Spring 1996

**Department of Physics, U. of Rochester**

Description: Held weekly recitation (25 undergrads) and office hours. Graded papers, prepared handouts for students before mid-term and final exams.

**PHY 122 Electricity and Magnetism** Fall 1996  
**Lab Assistant** Spring 1997

**Department of Physics, U. of Rochester**

Description: Weekly lab sessions (10 undergraduates), graded lab reports and prepared handouts for students before each lab session.

## **B. Individual Students Supervised**

Advising Ph.D. student Alexander Adams August 2014 -  
Department of Information Science present  
Cornell University

Advising Ph.D. student Jean Costa August 2013 -  
Department of Information Science present  
Cornell University

Advising Ph.D. student Tauhidur Rahman Department of Information Science Cornell University	July 2012 - present
Advising Ph.D. student Saeed Abdullah Department of Information Science Cornell University	September 2011 - present
Advising Ph.D. student Mashfiqui Rabbi Shuvo Department of Information Science Cornell University (Previously at Dartmouth College Computer Science)	September 2009 - present
Co-advising Ph.D. student Hong Lu (with Prof. Andrew Campbell) Department of Computer Science Dartmouth College Currently at Intel Research	September 2009 – April 2012
Co-advising Ph.D. student Nic Lane (with Prof. Andrew Campbell) Department of Computer Science Dartmouth College Currently at Microsoft Research Asia	September 2009 – March 2011
Co-advising Ph.D. student Mu Lin Department of Computer Science Dartmouth College Currently at Twitter	June 2008 – March 2013
Co-advising Master's student Janani Sriram Department of Computer Science Dartmouth College Currently at Microsoft	June 2008 – August 2009
Co-advising Ph.D. student Danny Wyatt (with Prof. Jeff Bilmes) Department of Computer Science and Engineering University of Washington Currently at Google	January 2005 – August 2010
Co-advised Master's student Danny Wyatt (with Prof. Henry Kautz) Department of Computer Science and Engineering University of Washington	September 2004- January 2005
Undergraduate Research supervisor, Cornell University	
Shankar Athinarayanan	2013-present
Bobby Zhou	2012-present
Scott Cambo	Sept-December 2013
Thiago Caetano	May-August 2013
Alisson Berezina	May-August 2013
Undergraduate Senior Thesis supervisor, Dartmouth College	
Ian Webster	2010-11
Linden Vongsathorn	2009-10
Kelly Hackett	2008-09

Jeff Fielding 2007-08

Advised and supervised summer interns at Intel Research Seattle

Jianxin Wu (Georgia Tech)	June-August 2006
Maryam Mahdaviyani (U. of British Columbia)	July-September 2006
Eric Garcia (U. of Washington)	April-November 2006
Lin Liao (U. of Washington)	July-September 2005
Jonathan Lester (U. of Washington)	July 2005-June 2006
Emmanuel Munguia-Tapia (MIT)	June-August 2004

Undergraduate Research Opportunities Program (UROP) supervisor, MIT 2001-2003

Leonardo Villarreal  
Juan Carlos Reyes

### C. Additional Student Committees

Anmol Madan, MIT Media Laboratory	PhD Committee, 2010
Emiliano Miluzzo, Dartmouth College, Computer Science	PhD Committee, 2011
Matthew Bell, Dartmouth College, Computer Science	PhD Committee, 2010
William Pentney, University of Washington, Computer Science	PhD Committee, 2007

## Professional Activities

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### A. Committee Activities

- **Judge:** MIT Technology Review's TR 35, 2009
- **Program Co-chair:** Ubicomp 2015, AAAI 2011 Special Track on Physically Grounded AI, AAAI Spring 2009 Symposium on Human Behavior Modeling, AAAI 2008 Student Abstract and Poster program, LOCA 2009 (Workshop on Location and Context-Awareness)
- **Area Chair:** CHI 2011 (Expanding Interaction through Technology, Systems, and Tools track), ICMI-MLMI 2009 (International Conference on Multi-Modal Interfaces and Workshop on Machine Learning and Multi-Modal Interaction)
- **Program Committee:** Wireless Health 2015, Ubicomp 2014, Sensys 2013, Ubicomp 2011, AAAI 2010 Special Track on Physically Grounded AI, AAAI 2008, AAAI 2008 Special Track on Physically Grounded AI, AAAI 2007, IJCAI 2009, Sensys 2010, Ubicomp 2010, Ubicomp 2009, Ubicomp 2008, Ubicomp 2007 Late-breaking Results, Pervasive 2009, ICML 2008, UAI 2007, IEEE International Workshop on modeling People and Human Interaction, October 2005
- **Senior Program Committee:** IUI 2008
- **Co-organizer** (with Prof. Scott Klemmer) of 2013 National Academy of Engineering Frontiers of Engineering Symposium session on Designing and Analyzing Societal Scale Networks, September 2013, Dagstuhl Seminar on Probabilistic Methods for Perceiving, Learning and Reasoning about Everyday Activities, June 2010.
- **Co-organizer** (with Prof. James Kitts) of a multi-disciplinary workshop on Modeling Social Dynamics sponsored by National Science Foundation, October 2006. Workshop website <http://seattle.intel-research.net/MSD/>
- **Organizing committee:** NIPS workshop on Discovery and Recognition of Human Activities and Interactions, December 2005, Ubicomp workshop on Supporting Social Interaction and Face-to-Face Communication in Public Spaces, September 2004
- **Guest Editor:** IEEE Pervasive special issue on Large Scale, Opportunistic Sensing
- **Editorial Board Member:** ACM Transactions on Intelligent Systems and Technology, July 2012-2013

### B. Reviewing Activities

- Reviewer for journals: ACM Computing Surveys, IEEE Pervasive, Communications of ACM, IEEE Transactions on Audio, Speech, and Language Processing, Journal of Machine Learning Research (JMLR), Pattern Analysis and Machine Intelligence (PAMI), IEEE Transactions on Industrial Electronics: special issue on Human-Robot Interface, Data Mining and Knowledge Discovery
- Reviewer for conferences: Pervasive Health, AAAI, UAI, ICML, IJCAI, Ubicomp, Pervasive, Conference on Human Factors in Computing Systems (CHI), User Interface and Software Technology (UIST), International Symposium on Wearable Computing (ISWC), International Conference on Supporting Group Work (GROUP), Internet of Things (IOT).
- Reviewer for grants: National Science Foundation panels and site-visit team member.

## University Service

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- Cornell University, Information Science Director of Undergraduate Studies (2014-17)
- Cornell University, Information Science Faculty Recruiting Committee (2014-15, 2013-14, 2012-13)
- Cornell University, Information Science Colloquium Coordinator (2013-14, 2012-13)
- Cornell University, Information Science PhD Admissions Committee (2011-12)
- Dartmouth College, CS Colloquium Chair (2008-09, 2009-10, 2010-11)
- Dartmouth College, CS PhD Admissions Committee (2008-09)
- Dartmouth College, CS Research Symposium Steering Committee (2008-09)
- Dartmouth College, Kemeny Computing Prize Committee Chair (2009-10, 2010-11)

## Grants and Gifts

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Google Faculty Award (\$60,000)

*Automatic real-time feedback to improve nonverbal communication in everyday life (PI)*

Intel Corporation, SRC (\$300,000)

*Identifying causes of sleep disruption and improving sleep hygiene (PI)*

National Institute of Mental Health (NIMH)

Exceptional Unconventional Research Enabling Knowledge Acceleration (EUREKA) for Neuroscience and Disorders of the Nervous System (R01)

*A New Paradigm for Illness Monitoring and Relapse Prevention in Schizophrenia*

Co-PI on a joint grant with Dror ben-Zeev (PI)

Funds allocated for research that will be conducted by co-PI Choudhury: \$161,473

Swiss National Science Foundation (SNSF)

*UBImpressed: Ubiquitous First Impressions and Ubiquitous Awareness*

Co-PI on a joint grant with Daniel Gatica-Perez (PI)

Funds allocated for research that will be conducted by co-PI Choudhury: \$170,857 (excluding overhead)

National Science Foundation (\$1,976,976)

SCH:INT:Novel Techniques for Patient Centric Disease Management using Automatically Inferred Behavioral Biomarkers and Sensor Supported Contextual Self-Report

Co-PI on a joint grant with Deborah Estrin (PI)

Samsung Corporation (\$80,000)

Future Information Technologies Center

*Crowd-sourced Participatory Mobile Data Collection (PI)*

Intelligence Advanced Research Projects Activity (IARPA) (\$13,361,062)

*EMBERS: Early Model Based Event Recognition using Surrogates*

Co-PI on a large team with Naren Ramakrishnan from Virginia Tech as PI  
Funds allocated for research that will be conducted by co-PI Choudhury: \$1,006,424

Intel Corporation (\$140,000/year for 3 years)  
Intel Center for Science and Technology – Pervasive Computing  
*Mobile Systems for Improved Health and Wellness* (PI)

National Science Foundation (#1058753, 2010-2012, \$249,998)  
Computer and Network Systems (CNS)  
*Brain-Mobile Interfaces: Exploratory Research into the Development of Networked NeuroPhones*  
Co-PI on a joint grant with Andrew Campbell (PI) and Rajeev Raizada

Swiss National Science Foundation (CRSII2\_127542, 2010-2013, 800,000 CHF)  
*SONVB: Sensing and Analyzing Organizational Nonverbal Behavior*  
Co-PI on a joint grant with Daniel Gatica-Perez (PI), Mariane Schmidt, and Jean-Marc Odobez  
Funds allocated for research that will be conducted by co-PI Choudhury: \$149,366

National Science Foundation (# 0910842, 2009-2012, \$3,000,000)  
Computer and Network Systems (CNS)  
*Trustworthy Information Systems for Healthcare*  
Senior Personnel on a joint grant with D. Kotz (PI), D. Anthony, S. Smith, E. Johnson, A. Gettinger

Nokia Corporation (\$150,000)  
*Community-Guided Learning: Exploiting Crowds of Mobile Sensor Users to build Context-Aware Systems* (PI)  
*Well-Being Networks: A Population-Guided Approach to Improving Quality of Life using Mobile Phones* (PI)

National Science Foundation (#0845683, 2009-2014, \$507,533)  
Information and Intelligent System (IIS)  
*CAREER: Enabling Community-Scale Modeling of Human Behavior and its Application to Healthcare* (PI)

National Science Foundation (# 0433637, 2004-2007, \$795,426)  
Human and Social Dynamics Priority Area  
*Creating Dynamic Social Network Models from Sensor Data*  
Co-PI on a joint with Jeff Bilmes (PI), Henry Kautz, Dieter Fox, and James Kitts  
I was the primary author of this grant and project lead. The research builds upon my Ph.D. research

## Press Coverage

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- Business Standard: [Future smartphones may monitor health by using blood, speech](#), August 2014
- Wall Street Journal: [Chainsaws, Gunshots and Coughs: Our Smartphones Are Listening](#), June 2014
- MIT Technology Review: [Wearable Self-Tracking Tool Listens for Yawns, Coughs, and Munches](#), June 2014
- [What Apple's M7 Motion-Sensing Chip Could Do](#), MIT Technology Review, September 2013
- The Economist, Technology Quarterly, [Teaching old microphones new tricks](#), June 2013
- PBS, Secret Lives of Scientists and Engineers, March 2013.
- New Scientist Magazine, August 2012, [Smartphone the feels your strain](#)
- Fast Company's Co.Exist, November 2011. [An App That Reads Your Feelings Through Your Voice](#)
- Cornell Chronicle, October 2011. [Monitoring mental health from your pocket](#)
- New York Times Magazine, September 2011. [The Cyborg in Us All](#)
- CBS Interactive, SmartPlanet interview. March 2011. [With People Aware Machines, Human Behavior Benefits](#)
- Earthsky.org Podcast. November 2010. [Cellphone Apps to Track our Health](#)



- New Scientist. November 2010. [Smartphone Apps that Monitor your Every Move](#)
- The Atlantic. September 2010. [The NeuroPhone](#)
- MIT Technology Review. 2010. [Mobile Phone Mind Control](#)
- MIT Technology Review. 2009. [Cell Phones that Listen and Learn](#)
- National Science Foundation. March 2009. [Computer Science – A Growing Field that needs a Few \(More\) Good Women](#)
- Northwestern University Media Management Center blog. 2009. [What if News is Searched for You?](#)
- NH Magazine. November 2008 It List. [28 Most interesting, happening, talked about people in the state](#)
- BBC Focus Magazine. November 2008. Cell Phone Sociology
- New York Times. October 2008. [You May Soon Know if You're Hogging the Discussion](#)
- The Dartmouth.com. September 2008. [Choudhury Honored for Tech Research](#)
- MIT Technology Review. September 2008. [TR 35](#)
- MIT Technology Review. June 2008. [The Future of Mobile Social Networking](#)
- MIT Technology Review. September 2007. [Keeping Gadgets from Interrupting](#)
- Strategy+Business. Autumn 2007. [The Science of Subtle Signals](#)
- MIT Technology Review. August 2007. [Making Phones Polite](#)
- MIT Technology Review. June 2007. [The iPhones Untapped Potential](#)
- Interviewed by the BBC for the documentary: Tomorrow's World. Memory Glasses featuring my wearable face recognition project. Aired May 10, 2000 on BBC1