Ehsan Hoque

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SUMMARY

I am regarded as a pioneer in using AI to enhance human social skills and reimagine health diagnosis. I have created new ways of diagnosing and managing neurological problems ranging from autism to Parkinson's. By developing scalable AI tools, our work has enhanced access to healthcare and equity. My group's work has advanced biomedical AI, while also being integrated into commercial tools such as Microsoft's "Presenter Coach," where they have been used by millions.

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA. Sept. 2013
Ph.D. in Media Arts and Sciences (Media Lab)
Thesis: *Computers to Help with Conversations: Affective Framework to Enhance Human Nonverbal Skills*
Advisor: Rosalind Picard
Thesis work was showcased at the MIT Museum as one of the most unconventional inventions at MIT.

University of Memphis, TN, USA July 2007
Masters in Electrical and Computer Engineering
Thesis: *What Speech Tells us about Discourse: The Role of Prosodic and Discourse Features in Dialogue Act Classification*

Penn State University, PA, USA May 2004
Bachelor of Science in Computer Engineering
Thesis: *Vision Enabled Interactive Robot*
Best Senior Design Award 2004
Alumni Achievement Award 2017

ACADEMIC EXPERIENCE

University of Rochester, NY

Professor, Computer Science Department *7/24-current*

Associate Professor, Computer Science Department *07/20-6/24*

Assistant Professor, Computer Science Department 07/13-6/20

Asaro-Biggar ('92) Family Fellow in Data Science *2017-20*

Interim Director, Goergen Institute for Data Science 01/18-06/19

Assistant Director of Research Outreach, Goergen Institute for Data Science 06/16-12/17

Affiliate Appointments: *Electrical and Computer Engineering, Brain and Cognitive Sciences, Enviornmental Health Sciences Center, Goergen Institute for Data Science*

GOVERNMENT EXPERIENCE

Saudi Data and AI Authority (SDAIA) 8/23-10/24
Chief Scientist of the National Center for AI *(on an leave of absence from University of Rochester)*

SDAIA, a government agency chaired by the Prime Minister of the Kingdom of Saudi Arabia (KSA), oversees AI innovation and regulation within the country. I led the R&D efforts at the National Center for AI (NCAI), focusing on developing and implementing solutions across health, education, energy, environment, and media sectors. Additionally, I managed academic centers of excellence within KSA and facilitate international collaborations.

INDUSTRY EXPERIENCE

IBM T. J. Watson Research Lab, Hawthorne, NY 5/10-9/10
Conceptualized and designed one of the first prototypes that recognizes and uses affective information of the consumers as they watched advertisements.

Walt Disney Imagineering R & D, Glendale, CA 5/09-8/09
Developed the first autonomous robot of Disney that can see, hear and make its own decisions. Developed the vision components of the system internally, and saved Disney $50k. System went live during my internship.

Goldman, Sachs & Co., NY 5/06-08/06
Technology Analyst Intern

SELECT AWARDS & LEADERSHIP

- **Presidential Early Career Award for Scientists and Engineers (PECASE)** 2025

PECASE is the highest honor bestowed by the U.S. government to outstanding scientists and engineers who show exceptional promise for leadership in science and technology. PECASE is awarded by the President of the United States and administered by the White House Office of Science and Technology Policy following nominations from participating agencies like the National Science Foundation and Department of Defense.

- **Board Member of Health Sciences Policy, National Academies of Sciences, Engineering and Medicine** 2023-25

"The Board on Health Sciences Policy oversees and guides a program of activities to encourage and sustain the continuous vigor of the basic biomedical and clinical research enterprises needed to ensure and improve the health and resilience of the public."

- **ACM Ubiquitous Computing 10-year-impact award** 2023

"This award is given to recognize articles published in the past 10 years whose contents are still vibrant and useful today and have had a major impact in the field of computing."

- **Distinguished Member of Association of Computing Machinery (ACM)** 2022

"A distinction that requires at least 15 years of professional experience in the computing field, and a significant level of accomplishment, or a significant impact in the field of computing, computer science or information technology."

- **Senior Member of the Association for the Advancement of Artificial Intelligence (AAAI)** 2022

"The Senior Member status is bestowed upon AAAI members who have achieved over 10 years of significant and sustained accomplishments within the field of artificial intelligence."

- **Emerging Leaders in Health and Medicine by the National Academy of Medicine (NAM)** 2020

Recognition from NAM as one of the 10 early- and mid-career professionals with demonstrated leadership and exceptional professional achievement in health and medicine to shape its' priorities and sustain the NAM's impact and reputation as a national leader in advancing knowledge and accelerating progress in science, medicine, policy, and health equity.

- **Early Career Award for Scientists and Engineers (ECASE-ARMY)** 2019

The ECASE-Army is modeled after the Presidential Early Career Award for Scientists and Engineers (PECASE). ECASE-Army is awarded by the Army Research Office (ARO) following a rigorous selection process among all ARO Young Investigator award recipients across all areas of science and engineering. ECASE-Army award is supported by $1M in new funding.

- **Credibility Assessment Standardized Evaluation (CASE) challenge by IARPA—1st Place** 2019

Proposed a protocol, w/ Sen and Haut, to assess the truthfulness of specific claims and to the assessment of the reliability, honesty, and trustworthiness of a source of a particular claim, whether that to be an individual, group or a broader organization or entity.

- **Google Faculty Award** 2014, 2016, 2019

"Google Faculty Research Awards Program aims to recognize and support world-class, permanent faculty pursuing cutting-edge research in areas of mutual interest. …The award is highly competitive - only 15% of applicants receive funding - and each proposal goes through a rigorous Google-wide review process."

- **NSF CAREER Award** 2018

"The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization."

- **10 Scientists to Watch (The SN 10) by Science News** 2017

Every year, Science News spotlights 10 rising scientists who will transform their research fields over the coming decades. Each scientist included in the SN 10 was nominated by a Nobel laureate or recently elected member of the National Academy of Sciences. All are age 40 or under and were selected for their potential to shape the science of the future.

- **Asaro-Biggar ('92) Family Fellow in Data Science** 2017

Endowment to support researchers in varied disciplines using data science methods to frame, analyze, and answer the big questions in their fields." The fellowship allows the University to honor and encourage outstanding faculty early in their academic careers at Rochester.

- **Pennsylvania State University Alumni Achievement Award** 2017

The Alumni Achievement Award recognizes alumni 35 years of age and younger for their extraordinary professional accomplishments. These prominent young alumni are nominated by an academic college and invited by the President of the University to return to campus to share their expertise with students, faculty, and administrators.

- **MIT Technology Review Top 35 Innovators Under 35 (TR35)** 2016

The Innovators Under 35 is an annual list published by MIT Technology Review magazine, naming the world's top 35 innovators under the age of 35. Nominations are sent from around the world and evaluated by a panel of expert judges. The purpose of the award is to honor accomplishments of exceptionally talented young innovators whose work has the greatest potential to transform the world.

- **NSF CRII Award** 2014

Encouraging research independence immediately upon obtaining one's first academic position after receipt of the PhD, the Directorate for CISE Computer and Information Science and Engineering (CISE) awards these grants to initiate the course of one's independent research.

- **Best papers/nominations**

Best Abstract in Clinical Research, Future of Parkinson's Disease Conference 2023
Best Paper Nomination, Affective Computing and Intelligent Interaction (ACII) 2022
Best Paper Nomination, ACM Multimedia (ACM MM) 2022 (brave new ideas track)
Best Paper Nomination, Affective Computing and Intelligent Interaction (ACII) 2017
Nomination for the Most Influential Articles in IEEE Transactions on Affective Computing , 2015
Best Paper Award (Top 5 in 392 Submissions), ACM Pervasive and Ubiquitous Computing (UbiComp), 2013
Best Paper Nomination (Top 5 in 245 Submissions), IEEE Automated Face and Gesture Recognition (FG), 2011
Best Paper Nomination (Top 5 in 125 submissions), Intelligent Virtual Agents, 2006
Excellence in Reviewing Award at the International Conference on Multimodal Interfaces (ICMI) 2014

- **IEEE Gold Humanitarian Fellowship** 2010

For demonstrating technical skills and knowledge to aid humanitarian work.

- **Best Senior Design Award, Penn State University** 2004

For designing and implementing a vision-enabled interactive robot 2004

Honors and awards to students (*underrepresented and minority students are marked with *)*

1) Neeley Pate* - Graduate Fellowship for Stem Diversity (2024-2027)
2) Sangwu Lee - CRA Undergraduate Researcher – Honorable Mention 2023, dept. outstanding researcher award 2024
3) Alex Martin - CRA Undergraduate Researcher – Honorable Mention 2023, dept. outstanding researcher award 2024
4) Raiyan Abdul Baten, PhD. – Association for the Advancement of Affective Computing (AAAC) Outstanding PhD Dissertation Award 2023
5) Md. Saiful Islam – Google PhD fellowship 2023-2026
6) Neeley Pate* – Provost fellowship 2023-2025
7) Caleb Wohn – NSF CSGrad4U graduate fellowship 2023
8) Adira Blumenthal* – ACII Best Paper Nomination, CRA Undergraduate Researcher – Honorable Mention 2022, dept. outstanding researcher award 2023
9) Dillanie Sumanthiran* – ACM MM Best Paper Nomination, dept. outstanding researcher award 2023
10) Kurtis Haut – Department of Defense Smart Fellowship 2020-2024
11) Wasifur Rahman – UbiComp Distinguished Paper Award 2020
12) Boyu Zhang - CRA Undergraduate Researcher, Finalist 2020
13) Melissa Wen* - NSFGRP honorable mention, Wells Award, Phi Beta Kappa Honor Society 2020
14) Shagun Bose* - Outstanding senior award 2020
15) Ashely Tenesaca* - McNair Fellowship, CRA Undergraduate Researcher – Honorable Mention 2019, 2020
16) Minh Tran - dept. outstanding researcher award 2020, Phi Beta Kappa Honor Society 2020
17) Jianyuan Zhong - CRA Undergraduate Researcher – Honorable Mention, c
18) Sangwu Lee - winner of IOTA book award,2018
19) Gazi Naven Ahmed - Xerox Fellowship, 2018

20) Luke Gerstner* - McNair Fellowship 2018
21) Famous Clark* - McNair Fellowship 2016
22) Duy Nguyen - winner of IOTA book award, 2016
23) Vivian Li* - CRA Outstanding Undergraduate Researcher 2016
24) Tergel Purevdorj* - Valedictorian, Computer Science, 2016
25) Luis Nova* - Xerox Fellow 2015
26) Zoe Tiet* - Xerox Fellowship 2014

PUBLICATIONS

The leading conference in conferences in Computer Science (e.g., ACM UbiComp, ACM IUI, IEEE FG, and AAAC ACII) are highly selective, undergo rigorous peer review involving 3-4 expert referees, and are intended for archival papers only. These conferences often exceed journals in their selectivity, visibility and impact. In the past decade, several CS conferences have also moved to a hybrid model with a journal component (e.g., IMWUT); however, many of them are too new to have accrued bibliometric indicators such as impact factors. *Students are typically named first. Ph.D., MS, and undergraduate students are bolded.*

Journal Publications

1. **B. Kane, C. Giugno**, L. Schubert, **K. Haut, C. Wohn**, E. Hoque, Managing Emotional Dialogue for a Virtual Cancer Patient: A Schema-Guided Approach, *IEEE Transactions on Affective Computing*, Vol. 15, 3, July 2024 **IF: 15**
2. **W. Rahman, A. Abdelkaer, S. Lee, P. Yang, M. S. Islam, T. Adnan, M. Hasan, E. Wagner, S. Park**, E. R. Dorsey, C. Schwartz, K. Jaffee, E. Hoque, A User-Centered Framework to Empower People with Parkinson's Disease, *Proceedings of ACM on Interactive, Mobile, Warble, and Ubiquitous Computing (IMWUT),* Volume 7, Issue 4, January 2024
3. **M.S. Islam, W. Rahman, A. Abdelkader, S. Lee, P.T. Yang**, J.L. Purks, J.L. Adams, R.B. Schneider, E.R. Dorsey, and E. Hoque. "Using AI to Measure Parkinson's Disease Severity at Home" *Nature Digital Medicine* . 6, 2023. **IF: 15.5**
4. **M. S. Islam, A. M. Proma, C. Wohn**, K. Berger, **S. Uong, V. Kumar**, K. S. Korfmacher, E. Hoque, SEER: Sustainable E-commerce with Environmental-impact Rating, *Cleaner Environmental Systems*, Volume 8, 2023. **IF: 5.3**
5. **W. Rahman, M. Hasan, M. S. Islam**, **T. Olubajo, J. Thaker, A. Abdelkader, P. Yang,** H. Paulson, G. Oz, A. Durr, T. Klockgether, T. Ashizawa, E. Hoque, Auto-Gait: Automatic Ataxia Risk Assessment with Computer Vision from Gait Task Videos, *Proceedings of ACM on Interactive, Mobile, Warble, and Ubiquitous Computing (IMWUT)*
6. **R. A Baten**, R. N. Aslin, G. Ghoshal, E. Hoque, Novel idea generation in social networks is optimized by exposure to a 'Goldilocks' level of idea-variability, *Proceedings of the National Academy of Sciences (PNAS) Nexus*, vol 1, 5, 2022.
7. **.K. Sen, K. Haut, D. Lomakin**, E. Hoque, A Mental Trespass? Unveiling Truth, Exposing Thoughts and Threatening Civil Liberties with Non-Invasive AI Lie Detection, *IEEE Transactions on Technology and Society*, Vol. 3, No. 3, June 2022 **IF: 1.5**
8. **Z. Razavi**, L. Schubert, K.V. Orden, **M. R. Ali, B. Kane**, E. Hoque, Discourse Behavior of Older Adults Interacting With a Dialogue Agent Competent in Multiple Topics, *ACM Transactions on Intelligent Interactive Systems (TiiS)*, Vol. 12, No. 2, June 2022 **IF: 2.13**
9. **W. Chowdhury, S. Lee, Md. S. Islam, V. Anthony, H. Ratnu, M. R. Ali, A. Mamun, E. Wagner, S. Jensen-Roberts, E. Waddell, T. Myers, M. Pawlik, J. Soto, M. Coffey, A. Sarkar,** R. Scheider, C. Tarolli, K. Lizarraga, J. Admas, M. Little, E. R. Dorsey**,** E. Hoque, "Detecting Parkinson's Disease from an Online Speech-task: Observational Study", *Journal of Medical Internet Research (JMIR)*, Vol 23, No 10, October 2021 **IF: 7.4**

10. **T.K. Sen, G. Naven, L. Gerstner, D. Bagley, R. Baten, W. Chowdhury, M. K. Hasan, K. Haut, A. Mamun, S. Samrose, A. S. Slowe**, E. Barnes, M. Frank, E. Hoque, DBATES: Distinguishing Benefits of Audio, Textual, and facial Expression features in competitive debate Speeches, *IEEE Transactions on Affective Computing,* to appear **IF: 15**

11. **R. A. Baten**, R. Aslin, G. Ghoshal, E. Hoque, Cues to gender and racial identity reduce creativity in diverse social networks, *Scientific Reports*, 11, Article number: 10261, 2021. **IF: 4.6**

12. **M. R. Ali, T. K. Sen, Q. Li, R. Langevin, T. Myers, S. Sharma**, E. R. Dorsey, E. Hoque, Analyzing Head Pose in Remotely-Collected Videos of People with Parkinson's Disease, *ACM Transactions on Computing for Healthcare*, Vol 2, Issue 4, October 2021. **IF: 3.3**

13. **K. Sibley, C. Girges,** E. Hoque, T. Foltynie, Video-based analyses of Parkinson's disease severity – a Review, *Journal of Parkinson's Disease*, March 2021 **IF: 5.2**

14. **J. Wang**, M. Lavender, P. Brophy, E. Hoque, H. Kautz, A Patient-Centered Digital Scribe, *The Journal of the American Medical Informatics Association*, Volume 4, Issue 1, January 2021 **IF: 8**

15. **M. R. Ali, T. K. Sen, B. Kane, S. Bose**, T. Carroll, R. Epstein, L. Schubert, E. Hoque, Novel Computational Linguistic Measures, Dialogue System and the Development of SOPHIE: Standardized Online Patient for Healthcare Interaction Education, in *IEEE Transactions on Affective Computing*, Jan 2021 **IF: 15**

16. **M. R. Ali**, E. Hoque, P. Duberstein, L. Schubert, **S. Z. Razavi, B. Kane, C. Silva, J. S. Daks, M. Huang**, K. V. Orden, Aging and Engaging: A Pilot Randomized Controlled Trial of an Online Conversational Skills Coach for Older Adults, *The American Journal of Geriatric Psychiatry (AJGP)*, December 2020 **IF: 3.8**

17. **R. A. Baten**, E. Hoque, Technology-driven alteration of nonvrbal cues and its effects on negotiation, *Negotiation Journal*, December 2020

18. **A. Zaman, B. Zhang**, V. Silenzio, H. Kautz, E. Hoque, The Relationship between Deteriorating Mental Health Conditions and Longitudinal Behavioral Changes in Google and YouTube Usages among College Students in the United States during COVID-19: Observational Study, *Journal of Medical Internet Research (JMIR) Mental Health*, November 2020. **IF: 5.2**

19. **R. A. Baten, D. Bagley, A. Tenesaca, F. Clark**, J. P. Bagrow, G. Ghoshal, E Hoque, Creativity in temporal social networks: How divergent thinking is impacted by one's choice of peers, *Journal of the Royal Society Interface*, October 2020. **IF: 3.9**

20. **F. Shahid, W. Rahman,** M. S. Rahman, **S. Purabi, A Seddiqa, M. Mostakim, F. Feroz, T. R. Soron, F. Hossain, N. Khan**, **A. B. Islam, N. Paul**, E. Hoque, A. Islam, Leveraging Free-Hand Sketches for Potential Screening of PTSD, *Proceedings of ACM on Interactive, Mobile, Warble, and Ubiquitous Computing (IMWUT),* September 2020

21. **M. Tran, T K. Sen, K. G. Haut, M. A., Ali,** M. E. Hoque, Are you really looking at me? A Feature-Extraction Framework for Estimating Interpersonal Eye Gaze from Conventional Video, *IEEE Transactions on Affective Computing*, June 2020. **IF: 15**

22. E. R. Dorsey et al., Deep Phenotyping of Parkinson's Disease, *Journal of Parkinson's Disease*, May 2020. **IF: 5.2**

23. P. Butow, M. E. Hoque, Using Artificial Intelligence to Analyze and Teach Communication in Healthcare, *The Breast,* Vol. 50, pp. 49-55, April 2020 **IF: 3.75**

24. **R. Langevin, M. R. Ali, T. Sen, C. Snyder, T. Myers**, E. R. Dorsey, M. E. Hoque, The PARK Framework for Automated Analysis of Parkinson's Disease Characteristics, *PACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (IMWUT)*, September 2019

25. **S. Samrose, R. Zhao, J. White, V. Li, L. Nova, Y. Lu, M. R. Ali**, M. E. Hoque, CoCo: Collaboration Coach for Understanding Team Dynamics during Video Conferencing, *PACM on Interactive, Mobile, Wearable, and Ubiquitous Computing (IMWUT)*, September 2018

26. **T. Sen, K. Hasan, Z. Teicher**, M. E. Hoque, Automated Dyadic Data Recorder (ADDR) Framework and Analysis of Facial Cues in Deceptive Communication, *Proceedings of ACM on Interactive, Mobile, Warble, and Ubiquitous Computing (IMWUT),* September 2018

27. **R. Shafipour, R. A. Baten, M. K. Hasan**, G. Ghoshal, G. Mateos, and M. E. Hoque. Buildup of speaking skills in an online learning community: A network-analytic exploration. *Palgrave Communications*, 2018 *[Nature Journal for Social Sciences]* **IF: .87**

28. **I. Naim, I. Tanveer**, D. Gildea, M. E. Hoque, Automated Analysis and Prediction of Job Interview Performance, *IEEE Transactions on Affective Computing,* Vol. 9, June, 2018. **IF: 15**

29. K. Orden, **M. R. Ali**, K. Parkhurst, P. Duberstein, M. E. Hoque, Aging and Engaging: The Development of an Automated Tool to Teach Social Engagement Skills, *The American Journal of Geriatric Psychiatry*, Vol. 25, no. 3, March 2017. **IF: 3.5**

30. **R. Zhao, V. Li, H. Barabosa**, G. Ghoshal, M. E. Hoque, A Semi-Automated, Collaborative, & Online Training Module for Communication Skills, *Proceedings of ACM on Interactive, Mobile, Warble, and Ubiquitous Computing (IMWUT),* September 2017

31. M. E. Hoque, R. W. Picard, Rich Nonverbal Sensing To Enable New Possibilities in Social Skills Training, *Special issue on "Aware Computing" for IEEE Computer*, April, 2014 **IF: 3.7**

32. M. E. Hoque, D. J. McDuff, R. W Picard, Exploring Temporal Patterns towards Classifying Frustrated and Delighted Smiles, *IEEE Transactions on Affective Computing*, Vol. 3, no. 3, September, 2012. **IF: 15**

33. J. C. Heigel, J. S. Andrawes, J. T. Roth, M. E. Hoque, R. M. Ford, Determining the Viability of Electrically Treating 6061 T6511 Aluminum for Use in Manufacturing Processes, *Transactions of the North American Manufacturing Research Institute of the Society of Manufacturing Engineers, NAMRI/SME*, May 2005.

Refereed Full Conference Papers

34. **M. S. Islam, T. Adnan**, J. Freyberg, **S. Lee, A. Abdelkader, M. Pawlik**, C. Schwartz, K. Jaffe, R. B. Schneider, E. Dorsey, and E. Hoque, "Accessible, At-Home Detection of Parkinson's Disease via Multi-task Video Analysis," in *Proc. 39th AAAI Conf. Artificial Intelligence (AAAI 2025)*, Feb. 2025. **AAAI 2025**
35. Y. Zhang, **P. Liu**, W. Gao, W. Dong, L. Ai, Z. Gong, S. Huang, Z. Li, E. Hoque, and J. Hirschberg, "A Survey on Open Information Extraction from Rule-based Model to Large Language Model," *The 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Nov 10, 2024. **EMNLP 2024**
36. **J. Spann**, **S. Chen**, T. Ashizawa, E. Hoque, "Getting on the Right foot: Using observational and quantitative methods to evaluate movement disorders, *29th Annual ACM Conference on Intelligent User Interfaces (IUI)*, March 2024, Greenville, South Carolina, USA. **IUI 2024**
37. **K. Haut, C. Wohn, B. Kane**, T. Carroll, **C. Guigno, V. Kumar**, R. Epstein, L. Schubert, E. Hoque, "Validating a virtual human and automated feedback system for training doctor-patient communication skills", *Affective Computing and Intelligent Interaction (ACII)*, September 2023, Boston, MA. **ACII 2023**
38. **M.S. Islam, A. Proma, Y. Zhou, S.N. Akter, C. Wohn**, E. Hoque. "KnowUREnvironment: An Automated Knowledge Graph for Climate Change and Environmental Issues", *The role of AI in responding to Climate Change, AAAI Fall Symposium Series*, November 2022.

39. **A. Proma, M.S. Islam, S. Ciko, R.A. Baten**,E. Hoque. "NADBenchmarks - a compilation of Benchmark Datasets for Machine Learning Tasks related to Natural Disasters." *The role of AI in responding to Climate Change, AAAI Fall Symposium Series*, November 2022.

40. **K. Haut, A. Blumenthal, S. Atterbury, X. Zhou, W. Rahman, E. Natali, M. R. Ali**, E. Hoque, Assistive Video Filters for People with Parkinson's Disease to Remove Tremors and Adjust Voice, to appear in *Affective Computing and Intelligent Interaction (ACII)*, October 2022 **[Best Paper Nomination]** **ACII 2022**

41. **K. Haut, C. Wohn, V. Antony, A. Goldfarb, M. Welsh, D. Sumanthiran, M. R. Ali**, E. Hoque, Systematic Feature Isolation for Bias Research Using Deepfakes, to appear in *30th ACM International Conference on Multimedia*, October 2022 **[Best Paper Nomination]** **ACM MM**

42. **S. Samrose**, E. Hoque, Suggestive Motivational Interviewing Agent for Remote Group Discussion, *ACM International Conference on Supporting Group Work (Group 22)*, Jan 2022. **Group 2022**

43. **M. K. Hasan, J. Spann, M. Hasan, M. S. Islam, K. Haut**, R. Mihalcea, and E. Hoque. Hitting your MARQ: Multimodal ARgument Quality Assessment in Long Debate Video. *In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*, Punta Cana, Dominican Republic. Association for Computational Linguistics. **EMNLP 2021**

44. **M. K. Hasan, S. Lee, W. Rahman, A. Zadeh**, R. Mihalcea, L. P. Morency, E. Hoque, Humor Knowledge Enriched Transformer for Understanding Multimodal Humor, to appear at *The Thirty-fifth AAAI Conference on Artificial Intelligence (AAAI-21),* February 2021. **AAAI 2021**

45. **A. Zaman**, H. Kautz, E. Hoque, V. Silenzio, C. Nichols, C. Cerulli, Discovering Intimate Partner Violence from Web Search History, *IEEE/ACM International Conference on Connected Health: Applications, Systems, and Engineering Technologies (CHASE)*, December, 2020. **CHASE 2020**

46. **M. R. Ali, S. Z. Razavi, R. Langevin, A. Al-Mamun, B. Kane, R. Rawassizadeh**, L. Schubert, E. Hoque, A Virtual Conversational Agent for Teens with Autism Spectrum Disorder: Experimental Results and Design Lessons, *ACM International Conference on Intelligent Virtual Agents, IVA '20*, Glasgow, UK, October 2020. **IVA 2020**

47. **W. Rahman, M. K. Hasan, S. Lee, A. Zadeh, C. Mao**, LP Morency, M. E. Hoque, Integrating Multimodal Information in Large Pretrained Transformers, *2020 Annual Conference of the Association for Computational Linguistics (ACL),* Seattle, July 2020. **ACL 2020**

48. **M. R. Ali**, J. Hernandez, E. R. Dorsey, M. E. Hoque, D. McDuff, Spatio-Temporal Attention and Magnification for Classification of Parkinson's Disease from Videos Collected via the Internet, *IEEE International Conference on Automated Face and Gesture Recognition*, Argentina, May 2020. **FG 2020**

49. **G. Naven, T. K. Sen, L. Gerstner, K. G. Haut, M. Wen**, M. E. Hoque, *Leveraging Shared and Divergent Facial Expression Behavior Between Genders in Deception Detection, IEEE International Conference on Automated Face and Gesture Recognition*, Argentina, May 2020. **FG 2020**

50. **M. K. Hasan, W. Rahman, A. Zadeh, J. Zhong, I. Tanveer**, LP Morency, M. E. Hoque, UR-FUNNY: A Multimodal Language Dataset for Understanding Humor, Empirical Methods in Natural Language Processing (EMNLP 2019), Hong Kong, November, 2019 **EMNLP 2019**

51. **M.K. Hasan, W. Rahman, L. Gerstner, T. K. Sen, S. Lee, K. G. Haut**, M. E. Hoque, Facial Expression Based Imagination Index and a Transfer Learning Approach to Detect Deception, 8*th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, September 2019. **ACII 2019**

52. **M. Ali, T. Sen, V. Nguyen**, R. Rawassizadeh, P. Duberstein, R. Epstein, M. E. Hoque, What Computers Can Teach Us About Doctor-Patient Communication: Leveraging Gender Differences in Cancer Care, *8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, September 2019. **ACII 2019**

53. **R. B. Baten, F. Clark**, M. E. Hoque, Upskilling Together: How Peer-interaction Influences Speaking-skills Development Online, *8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, September 2019. **ACII 2019**

54. **S. Samrose, W. Chu, C. He, Y. Gao, S. S. Shahrin**, Z. Bai, M. E. Hoque, Visual Cues for Disrespectful Conversation Analysis, *8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, September 2019. **ACII 2019**

55. **M. K. Hasan, T. K. Sen, Y. Yang, R. A. Baten, K. G. Glenn**, and M. E. Hoque, LIWC Into the Eyes: Using Facial Features to Contextualize Linguistic Analysis in Multimodal Communication, *8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019)*, Cambridge, UK, September 2019. **ACII 2019**

56. **M. R. Ali, T. K. Sen, D. Crasta, V-D. Nguyen,** R. Rogge, M. E. Hoque, The What, When, and Why of Facial Expressions: An Objective Analysis of Conversational Skills in Speed-Dating Videos, *IEEE International Conference on Automated Face and Gesture Recognition*, China, May 2018. **FG 2018**

57. **T. K. Sen, K. Hasan, M. Tran, M. Levin, Y. Yang**, M. E. Hoque, Say CHEESE: Common Human Emotional Expression Set Encoder Analysis of Smiles in Honest and Deceptive Communication, *IEEE International Conference on Automated Face and Gesture Recognition*, Xian, China, May 2018. **FG 2018**

58. **I. Tanveer, S. Samrose, R. A. Baten**, M. E. Hoque, How Emotional Trajectories Affect Audience Perception in Public Speaking, conditionally accepted to *The Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI),* Montréal, Canada. **CHI 2018**

59. **M. R. Ali**, K. Orden, **K. Parkhurst, V. D. Nguyen, S. Liu**, P. Duberstein, M. E. Hoque, Aging and Engaging: A Social Conversational Skills Training Program for Older Adults, *ACM Intelligent User Interfaces (IUI)*, Tokyo, Japan, March 2018. **IUI 2018**

60. **R. Li**, J. Curhan, M. E. Hoque, Understanding Social Interpersonal Interaction via Synchronization Templates of Facial Events, conditionally accepted to *The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18),* February, 2018. **AAAI 2018**

61. L. Chen, **R. Zhao**, B. Lehman, C. Leong, G. Feng, M. E. Hoque, Automated Video Judgement on a Large-Sized Corpus Collected Online, *7th Affective Computing and Intelligent Interaction (ACII)*, October, 2017. **[Best Paper Nomination]** **ACII 2017**

62. **T. Sen, M. R. Ali**, P. Duberstein, R. Epstein, M. E. Hoque, Modeling Doctor-Patient Communication with Affective Text Analysis, *7th Affective Computing and Intelligent Interaction (ACII)*, October, 2017. **ACII 2017**

63. **S. Z. Razavi**, L. Schubert, **M. Ali**, M. E. Hoque, Managing Causal Spoken Dialogue Using Flexible Schemas, Pattern Tranduction Trees, and Gift Clauses, *5th Annual Conference on Advances in Cognitive Systems (ACS)*, Troy, NY, May, 2017. **ACS 2017**

64. **S. Z. Razavi, M. Ali**, T. Smith, L. Schubert, M. E. Hoque, The LISSA Virtual Human and ASD Teens: An Overview of Initial Experiments, *16th International Conference on Intelligent Virtual Agent*, Los Angeles, California, September, 2016. **IVA 2016**

65. **M. R . Ali, F. Ciano, R. Zhao, I. Naim**, M. E. Hoque, ROC Comment: Captioning of Behavioral Videos, *Proceedings for 17th ACM International Joint Conference on Pervasive and Ubiquitous Computing*, Heidelberg, Germany, September, 2016. **UbiComp 2016**

66. **M. Tanveer, R. Zhao, K. Chen, Z Toet**, M. E. Hoque, AutoManner: An Automated Interface for Making Public Speakers Aware of Their Mannerisms, to appear in *ACM Intelligent User Interfaces (IUI)*, Sonoma County, CA, April, 2016. **IUI 2016**

67. **M. Tanveer**, J. Liu, M. E. Hoque, Unsupervised Extraction of Human-Interpretable Nonverbal Behavioral Cues in a Public Speaking Scenario, *ACM Multimedia,* Australia, 2015. **ACMMM 2015**

68. **M. Fung, Y. Jin. R. Zhao,** M. E. Hoque, ROC Speak: Semi-Automated Personalized Feedback on Nonverbal Behavior from Recorded Videos, *ACM International Joint Conference on Pervasive and Ubiquitous Computing,* Osaka, Japan, September, 2015. **UbiComp 2015**

69. **C. Ryan**, K. Ciesinski, M. E. Hoque, Vowel Shapes: An Open-source, Interactive Tool to Assist Singers with Learning Vowels, *ACM International Joint Conference on Pervasive and Ubiquitous Computing,* Osaka, Japan, September, 2015. **UbiComp 2015**

70. **M. Ali, D. Crasta, L. Jin, A. Baretto, J. Pachter**, R. Rogge, M. E. Hoque, LISSA- Live Interactive Social Skill Assistance, to appear in *6th Affective Computing and Intelligent Interaction*, China, September, 2015. (Oral presentation: top 28% of the submissions). **ACII 2015**

71. **I. Naim, I. Tanveer**, D. Gildea, M. E. Hoque, Automated Prediction of Job Interview Performance: The Role of What You Say and How You Say It, *IEEE International Conference on Automated Face and Gesture Recognition*, Slovenia, May 2015. (Oral Presentation: top 14% of the submissions) **FG 2015**

72. **R. Li**, J. Curhan, M. E. Hoque, Role of Synchronized Facial Expressions to Predict Negotiation Outcome, *IEEE International Conference on Automated Face and Gesture Recognition,* Slovenia, May 2015. **FG 2015**

73. **M. Tanveer, E. Lin**, M. E. Hoque, Rhema: A Real-Time In-Situ Intelligent Interface to Help People with Public Speaking, *ACM Intelligent User Interfaces*, Atlanta, GA, April, 2015. (Acceptance rate: 22.9%) **IUI 2015**

74. M. E. Hoque, M. Courgeon, J-C. Martin, B. Mutlu, R. W. Picard, MACH: My Automated Conversation coacH*, ACM International Joint Conference on Pervasive and Ubiquitous Computing*, Switzerland, September 2013. (Acceptance rate: 23.4%) **[Best Paper Award]** (one of top 5 papers among 392 submissions) **UbiComp 2013**

75. J. Hernandez*, M. E. Hoque*, W. Drevo, R. W. Picard, Mood Meter: Counting smiles in the Wild, *ACM International Joint Conference on Pervasive and Ubiquitous Computing,* Pittsburgh, PA, September 2012. *(*equal contribution)* (Acceptance rate: 19%) **UbiComp 2012**

76. M. E. Hoque, L-P. Morency, R. W. Picard, Are you friendly or just polite? – Analysis of smiles in spontaneous face-to-face interactions, *Affective Computing and Intelligent Interaction*, Memphis, TN, USA, October, 2011. (Oral presentation. Acceptance rate for oral presentation: 33%) **ACII 2012**

77. M. E. Hoque, R. W. Picard, Acted vs. natural frustration and delight: Many people smile in natural frustration, *9th IEEE International Conference on Automatic Face and Gesture Recognition*, Santa Barbara, CA, USA, March 2011. **[Best Paper Nomination]** (one of top 5 papers among 245 submissions) **FG 2011**

78. M. E. Hoque, R. elKaliouby, R. W. Picard, When Human Coders (and Machines) Disagree on the Meaning of Facial Affect in Spontaneous Videos, *9th International Conference on Intelligent Virtual Agents*, Amsterdam, Netherlands, September 2009. (Acceptance rate: 26%) **IVA 2009**

79. M. E. Hoque, J. K. Lane, R. elKaliouby, M. Goodwin, R. W. Picard, Exploring Speech Therapy Games with Children on the Autism Spectrum, *In Proceedings of InterSpeech*, Brighton, UK, September, 2009. **Interspeech 2009**

80. M. M. Louwerse, P. Jeuniaux, B. Zhang, W. Jie, M. E. Hoque, The Interaction between Information and Intonation Structure: Prosodic Marking of Theme and Rheme, *The 30th meeting of Cognitive Science Society*, Washington, DC, July 2008. **CogSci 2008**

81. M. E. Hoque, M. S. Sorower, M. Yeasin, M. M. Louwerse, What Speech Tells us about Discourse: The Role of Prosodic and Discourse Features in Dialogue Act Classification, *IEEE International Joint Conference on Neural Networks*, Orlando, FL, August 2007. **IJCNN 2007**

82. M. M. Louwerse, N. Benesh, M. E. Hoque, P. Jeuniaux, G. Lewis, J. Wu, M. Zirnstein, Multimodal Communication in Face-to-Face Conversations, *The 29th meeting of Cognitive Science Society*, TN, August 2007. **CogSci 2007**

83. M. E. Hoque, M. Yeasin, M. M. Louwerse, Robust Recognition of Emotion from Speech, *6th International Conference on Intelligent Virtual Agents (IVA)*, Marina Del Rey, CA, August 2006. **[Best Paper Nomination]** (Acceptance rate: 28%) **IVA 2006**

84. M. Louwerse, P. Jeuniaux, M. E. Hoque, J. Wu, G. Lewis, Multimodal Communication in Computer-Mediated Map Task Scenarios, *The 28th Annual Conference of the Cognitive Science Society*, Canada, July 2006. **CogSci 2006**

85. M. E. Hoque, D. J. Russomanno, M. Yeasin, 2D Captchas from 3D Models, *IEEE SoutheastCon*, Memphis, TN, April 2006.

86. M. E. Hoque, R. M. Ford, and J. T. Roth, Automated Image Analysis of Microstructure Changes in Metal Alloys, *IS&T/SPIE Symposium on Electronic Imaging 2005, Machine Vision Applications in Industrial Inspection XVIII*, San Jose, CA, January 2005.

Patents

87. "Methods and Apparatus for Conversation Coach", USPTO Patent # US9691296 B2 in 2016 (with Picard)

Peer reviewed Workshops/Work-In-Progress/Demos

88. T. Adnan et al., Unmasking Parkinson's disease using smiles: An AI-enabled Screening Framework, *Future of Parkinson's disease conference—improving care and driving research*, November 2023, Austin, Texas, USA **[Best Abstract in Clinical Research]**

89. M. Hasan, C. Ozel, S. Potter and E. Hoque, "SAPIEN: Affective Virtual Agents Powered by Large Language Models*," in *11th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW)*, Cambridge, MA, USA, 2023 pp. 1-3.

90. M. Hasan et al., Auto-Gait: Automatic Ataxia Risk Assessment with Computer Vision on Gait Task Videos, *International Congress for Ataxia Research,* November 1-4 , TX, USA 2022 **ICAR 2022**

91. E. A Hartman et al., A Week in the Life with Parkinson's Disease: A Holistic Overview from Four Digital Technologies, *In: Movement Disorder Society*; September 15-18, 2022; Madrid, Spain. **MDS 2022**

92. P. T. Yang et al. Analyzing gait videos to identify and evaluate spinocerebellar ataxia types 1 and 3. *In: Movement Disorders Society*; September 15-18, 2022; Madrid, Spain. **MDS 2022**

93. P. T. Yang et al. Longitudinal evaluation of hypomimia in individuals with Parkinson's disease using a video analytics tool. *In: Movement Disorders Society*; September 15-18, 2022; Madrid, Spain **MDS 2022**

94. W. Rahman, S. Mahbub, A. Salekin, M. K. Hasan, E. Hoque, HirePreter: A Framework for Providing Fine-grained Interpretation for Automated Job Interview Analysis, in the *Second Workshop on Applied Multimodal Affect Recognition (ACII Workshop)*, 2021. **AMAR 2021**

95. **S. Samrose**, and E. Hoque, "Quantifying the Intensity of Toxicity for Discussions and Speakers," in the Second Workshop on Applied Multimodal Affect Recognition (ACII Workshop), 2021. **AMAR 2021**

96. A. Zaman, B. Zhang, V. Silenzio, **E. Hoque** and H. Kautz, Individual-level Anxiety Detection and Prediction from Longitudinal YouTube and Google Search Engagement Logs, *Data for the Wellbeing of Most Vulnerable Workshop, collocated with ICWSM*, 2021 **DWMV 2021**

97. A. Chattoraj, R. Acharyya, S. Das, M. Tanveer, **E. Hoque**, Removing racial bias in TED talk ratings by awareness of verbal and gesture quality, *Responsible AI ICLR 2021 Workshop* **RAI 2021**

98. **B. Zhang, A. Zaman, R. Acharya**, E. Hoque, V. Silenzio, H. Kautz, Detecting Individuals with Depressive Disorder from Personal Google Search and YouTube History Logs, *Machine Learning in Public Health Workshop at NeurIPS* 2020. **NeurIPS 2020**

99. **A. Singhal, M. Rafayet. Ali, R. Baten,** C. Kurumada, E. Marvin, and M Ehsan Hoque, "Analyzing the Impact of Gender on the Automation of Feedback for Public Speaking", *8th International Workshop on Human Behavior Understanding*, in FG 2018. **HBU 2018**

100. **M. Tanveer**, M. E. Hoque, A Google Glass App to Help the Blind with Small Talk, *The 16th International ACM SIGACCESS Conference on Computers and Accessibility*, Rochester, NY, October, 2014. **ASSETS 2014**

101. **T. K. Sen, M. W. Sinko, A. T. Wilson**, M. E. Hoque, M.I.D.A.S. Touch: Magnetic Interactive Device for Alternative Sight through Touch, *The 16th International ACM SIGACCESS Conference on Computers and Accessibility)*, Rochester, NY, October, 2014. **ASSETS 2014**

102. M. E. Hoque, R. W. Picard, Automated Coach to Practice Conversations, *5th biannual Association on Affective Computing and Intelligent Interaction*, 2-5- September, 2013. **ACII 2013**

103. M. E. Hoque, My Automated Conversation Helper (MACH): Helping People Improve Social Skills, *Proceedings of the 14th ACM International Conference on Multimodal Interaction*, Doctoral Consortium, Santa Monica, CA, October 2012.
ICMI 2012

104. J. Hernandez*, M. E. Hoque*, R. Picard, Mood Meter: Large-Scale and Long-Term Smile Monitoring System, *ACM SIGGRAPH Emerging Technologies*, August 2012. (*equal contribution) **Siggraph 2012**

105. M. E. Hoque, D. J. McDuff, L-P. Morency, R. W. Picard, Machine Learning for Affective Computing, *Affective Computing and Intelligent Interaction*, Memphis, TN, USA, October, 2011.
ACII 2011

106. M. E. Hoque, R. W. Picard, I See You: Towards Robust Recognition of Facial Expressions and Speech Prosody in Real Time, *International Conference on Computer Vision and Pattern Recognition*, San Francisco, CA, 2010. **CVPR 2010**

107. M. E. Hoque, M. Goodwin, R. elKaliouby, R. W. Picard, Design and Evaluation of Interactive, Customizable and Extensible Speech Enabled Games as speech Therapy for Kids with Autism, *Extended Abstract of IMFAR*, Philadelphia, PA, USA, May 20-22, 2010. **IMFAR 2010**

108. P. Robbel, M. E. Hoque, C. Breazeal, An Integrated Approach to Emotional Speech and Gesture Synthesis in Humanoid Robots, *Workshop on Affective Interaction in Natural Environments (AFFINE) in ICMI 2009*, Cambridge, MA 2009. **ICMI 2009**

109. M. Eckhardt, M. Madsen, Y. Kashef, A. R. Nasser, M. E. Hoque, R. el Kaliouby, M. Goodwin, R. W. Picard, User-Centered Design of Technology for Just-In-Time, In-Situ Exploration of Facial Affect on the Autism Spectrum, *Extended Abstract of IMFAR*, Chicago, IL, USA, May 7-9, 2009. **IMFAR 2009**

110. M. Madsen, R. elKaliouby, M. Eckhardt, M. E. Hoque, M. Goodwin, R. W. Picard, Lessons from Participatory Design with Adolescents on the Autism Spectrum, *Work-In-Progress in the Extended Abstract of CHI 2009*, Boston, MA, April 2009. **CHI 2009**

111. P. Jeuniaux, M. Louwerse, J. Wu, M. E. Hoque, Embodied Conversational Agents: Multimodal Communication and Embodiment, *The Garachico workshop, Symbols, Embodiment and Meaning: A Debate*. December 15-19, Tenerife, Spain, 2005.

Refereed Conference Presentations

112. M. Fung, J. Curhan, M. E. Hoque, Processing Nonverbal Behavior in the Cloud. In J. R. Curhan & M. E. Hoque (Chairs), *The emerging role of artificial intelligence in the study and practice of negotiation and mediation.* Symposium at the 74th Academy of Management Annual Meeting, August, Philadelphia, Pennsylvania, 2014. **AOM 2014**

Student Research Competitions

113. **M. E. Hoque**, Analysis of Speech Properties of Neurotypicals and Individuals Diagnosed with Autism and Down Syndrome, *10th ACM conference on Computers and Accessibility*, Halifax, Nova Scotia, October, 2008. [Finalist of the Student Research Competition] **ASSETS 2008**

114. **M. E. Hoque**, M. Yeasin, M. M. Louwerse, Robust Recognition of Emotion in e-Learning Environment, poster presented at *18th Annual Student Research Forum*, Memphis, TN April, 2006. **[Best Poster Award]**

PhD Thesis

M. E. Hoque, *Computers to Help with Conversations: Affective Framework to Enhance Human Nonverbal Skills*, Ph.D. thesis, September, 2013.

MS Thesis

M. E. Hoque, *What Speech Tells us about Discourse: The Role of Prosodic and Discourse Features in Dialogue Act Classification*, *MS Thesis*, May 2007.

RESEARCH GRANTS & GIFTS

Total External Grant Money received: **$20.0 million**
(AS PI): **$9.6 million**

*Current sponsored research (*lead PI)*

ARO	*Enhancing creative productivity in self-organizing social networks (w/ Gourab Ghoshal)	$700,000	2022-2025
Moore Foundation	*Improve access to quality diagnosis for Parkinson's Disease	$500,000	2021-2024
NSF	Prolonged Exposure Collective Sensing System (PECSS) for PTSD (w/ Rosa Arriaga, Barbara Rothbaum, Andrew Sherrill, Thomas Ploetz)	$1.2 M	2019-2023
ARO	*Human-Machine Symbiosis Framework to Understand Human Deception	$1M	2019-24
NIH	Morris K. Udall Center at the University of Rochester (UR-Udall Center) (w/ Ray Dorsey et al)	$9.16M	2018-23
NSF	*CAREER: A collaboration coach with effective intervention strategies to optimize group performance	$500,000 REU: $64,000	2018-23
NSF	*LISSA: Live Interactive Social Skills Assistant (w/ Lenhart Schubert)	$150,000 REU: $16,000	2015-17
DARPA	*Communication with a Learning Collaborative Problem Solving Agent (Communicating w/ Computers Program; subcontract to IHMC w/ Lenhart Schubert)	$2.5M	2015-19
ARO	*Automated Modeling of Deceptive Intent in Computer Mediated Conversations	$375,000	2015-18
NSF	*Enabling Behavior Sensing via the Cloud and its Application to Public Speaking (CRII)	$180,000 REU: $32,000	2015-17
NSF	*Graduate Training in Data-Enabled Research into Human Behavior and its Cognitive and Neural Mechanisms (w/ Henry Kautz, Greg deAngelis, Robert Jacobs) (NRT)	$3M	2015-19
DARPA	*Online Platform to Capture and Analyze Audio/Video Data (SSIM program; subcontract to SRI)	$118,146	2014-15
NSF	*Student Travel Grants to attend MobiSys 2014	$20,000	2014-15

*Industry gifts, internal, and other (*lead PI)*

Macy Foundation	*Advancing Healthcare Communication: A Proposal for AI-Driven Training	$24,750	2024
UofR	Novel digital motor measures of Prodormal LRRK2 Parkinson's disease	$25,000	2024
UofR	*Versatile and Customizable Virtual Patients to Improve Doctor-Patient Communication (w/ Ron Epstein)	$19,831	2022
UofR	Cat Moment: Promoting Inclusive Conversation in Small-Group Learning (w/ Zhen Bai)	38,546	2022
UofR	*Designing Effective Intervention to Promote Green Products in Online Shopping Platforms (w/ Karen Berger)	$19,831	2021
UofR	*Understanding Creative Performances in Social Networks (w/ Gourab Ghoshal)	$42,493	2021
Google	*ExploreCSR (w/ Zhen Bai)	$18,000	2020
UofR	Wadsworth C. Sykes Faculty Engineering Award	$3000	2020
Google	*Early diagnosis of Parkinson's from videos: a possible extension of Google hangout	$66,013	2020
UofR	*A Mixed Reality Smart Glass Virtual Arm for Motor Recovery in Stroke (w/ Ania Busza)	$50,700	2017
UofR	Social Modifiers of Stress Regulation and Healthy Aging (w/ Kathi Heffner, Feng Lin, Duje Tadin, Kim Van Ordern	$124,828	2017
Google	*Processing Emotion in the Cloud: Adding a New Dimension in Google Hangouts	$61,858.00	2016
UofR	Aging & Engaging: The Development of an Automated Tool to Teach Social Engagement Skills for Older Adults (w/ Kimberly A Van Orden, Paul Duberstein, Yeates Conwell	$50,000	2015
Google	*Online Platform for People to Practice Public Speaking	$62,358	2014
Microsoft	*Processing Emotion in the Cloud	$40,000	2014
MIT	*Director's grant	$25,000	2012
MIT	MIT Mood Meter, Independent People (w/ Javier Hernandez) by Council	$10,000	2011

	for the Arts at MIT (CAMIT)		
MIT	MIT Mood Meter (w/ Javier Hernandez) by Festival of Arts, Science and Technology (FAST)	$6,000	2011
IEEE	*A multimodal virtual platform to help people with social phobia	$10,000	2011

PROFESSIONAL SERVICES

Associate Editors

2023-current Editorial board member of IEEE Pervasive Computing
2017-2020 PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)
2017-current Digital biomarkers
2015-19 IEEE Transactions on Affective Computing
2013-current Journal of Multimodal Interfaces

Program Committee Chair

2017 IEEE International Conference on Identity, Security and Behavior Analysis (ISBA)

Program Committee Member:

2024 International Artificial Intelligence Olympiad (IAIO)
2021 AAAC ACII
2020 AAAI
2019 ACM CHI
AAAC ACII
2018 IEEE FG
2017 ACM IUI
IEEE FG
2016 ACM UbiComp
2015 ACM UbiComp
AAAC ACII

Workshop Committee member

2021 Future of digital biomarkers, in conjunction with MobiSys 2021
2017 Deep Affective Learning and Context Modeling (DAL-COM), in conjunction with CVPR 2017
2015 Multimodal Machine Learning Workshop, in conjunction with NIPS 2015
Emotion Representation, Analysis and Synthesis in Continuous Time and Space (EmoSpace 2015), IEEE FG
2014 Recognition Of Affect Signals from Physiological data for Social robots (OASIS 2014)
2012 International Workshop Series on Spoken Dialogue Systems Technology (IWSDS), 2012.

Referee

Journals

ACM Transactions for Computer-Human Interaction.
IEEE Transactions on Affective Computing
Journal of Speech Communication.
IEEE Transactions on Multimedia.
Journal of Phonetics.

Conferences

2022 ACM CHI, IMWUT, AAAI

2021	ACM CHI, IMWUT
2020	ACM CSCW
2019	ACM CHI, IEEE FG
2018	ACM UIST, ACM CHI
2017	ACM CHI, ACM UIST, ACM ICMI, AAAC ACII
2016	ACM UbiComp, ACM CHI, ACM ICMI, ACM IUI, ACM UIST
2015	ACM UbiComp, ACM CHI, ACM UIST, ACM IUI, AAAC ACII, IEEE FG
2014	ACM UbiComp, ACM IUI, ACM CHI, ACM ICMI, ACM UIST
2013	ACM UbiComp, ACM UIST, ACM IUI, ACM ICMI, ACM CHI, AAAC ACII
2012	ACM UbiComp, ACM CHI, ACM ICMI
2011	AAAC ACII, ACM CHI, ACM ICMI

Organizing Roles

2024	Planning Committee Member, Exploring the Bidirectional Relationship between Artificial Intelligence and Neuroscience, The National Academies of Science, Engineering and Medicine, USA (March 2024)
2023	Chair, National Academy of Medicine, Emerging Leaders in Health and Medicine Scholars Forum (2023)
	General chair, Affective Computing and Intelligent Interaction (ACII 2023)
2020	Special Session Chair for IEEE FG
2019	Moderator, Workforce of the future, Microsoft Faculty Summit
2018	Demo chair for IEEE FG
	HCCS workshop co-chair, PerCom
2017	Best Paper Award Committee for IEEE FG
	Demo chair for AAAC ACII
2015	Special Session Chair for AAAC ACII
2014	Student Travel Grants Chair for MobiSys
	Co-Chair of a special panel on negotiations at Academy of Management (AOM)
2011	Co-chair of Machine Learning for Affective Computing workshop at ACII

Panelist

2020	NSF IIS (March), NSF SCH (March)
2019-2022	Army Research Lab
2018	NSF IIS (April), NSF IIS (July), NSF IIS (November), Army Research Lab
2017	NSF IIS, Army Research Lab
2016	Army Research Lab
2015	NSF IIS, Army Research Lab

University Service

2022-2023	Newsletter
	Awards Committee
	Colloquium committee
	AI center-scale planning
2021-2022	Newsletter
	AI strategy committee
	Web committee
2020-2021	Awards committee
	Web Committee
	Newsletter
2019-2020	Review Committee for Wendi Heinzelman, Dean of the Hajim School of Engineering
	Faculty Hiring Committee
	Web Committee
	Awards committee
2018-2019	Search committee, Director for the Goergen Institute for Data Science, University of Rochester

	Web Committee
2017-2018	Faculty Hiring Committee
	Graduate Education Committee
	Graduate Students Admissions Committee
	Web Committee
2016-2017	Faculty Hiring Committee
	Graduate Students Admissions Committee
2015-2016	Department Colloquium Chair
	Graduate Students Admissions Committee
	Web Committee
2014-2015	Faculty Hiring Committee
	Department Colloquium Chair
	Graduate Education Committee
	Graduate Students Admissions Committee
	Infrastructure (labcom) Staff support
2013-2014	Department Colloquium Chair
	Faculty Advisory Committee , *Digital Media Studies*
	Graduate Education Committee
	Graduate Students Admissions Committee
	Graduate Students Recruitment Committee

SELECTED INVITED TALKS

Invited Plenary Talks and Distinguished Lectures

1) *Artificial Intelligence to enable neurological care available anytime, anywhere.*
Invited Speaker: 1st International Conference on Innovations in Parkinson's Disease November 2024, Riyadh

2) *Beyond the Hype: The prospects and Perils of Generative AI in Healthcare*
Keynote Speaker: King Abdullah University of Science and Technology (KAUST) Smart Health Initiative Annual Conference, November 2023

3) *Transforming Autism Care: The Promise of Generative AI in social skills enhancement*
Invited Speaker: Improving Autism Services through Innovation and Integration Conference, Riyadh, October 2023

4) *Should we deploy our research?*
Keynote Speaker: 12th International workshop on Human Behavior Understanding, ICPR 2022

5) *Multimodal Analysis to ensure equity and access in healthcare*
Keynote Speaker: Applied Multimodal Affect Recognition (AMAR), ACII 2021

6) *Computer vision to enable neurological care available anytime, anywhere*
Keynote Speaker, Face and Gesture Analysis for Health Informatics (FGAHI), ICMI 2020

7) Upskilling the future workforce using AI and Affective Computing
Keynote Speaker, Workshop on Social Affective Multimodal Interaction for Health (SAMIH), ICMI 2020

8) *Application of multimodal communication in health and medicine*
Keynote Speaker, Second Grand Challenge and Workshop on Multimodal Language, ACL 2020

9) *Data, Learning & Education – Role of Artificial Intelligence (AI)*
Invited Speaker, Transforming Education Conference for Humanity (TECH), Visakhapatnam, India, Dec 2019

10) *A Fast Track to New Therapies? New Ways to Monitor Parkinson's Symposium in the real world using a computer app*
Keynote Speaker, Annual Parkinson's Symposium, Rochester, NY, April 2019

11) *Upskilling the future workforce through affective training*
Keynote Speaker, 5th International Conference on Networking, Systems and Security, Bangladesh, December 2018

12) *When Can a Computer Improve Your Social Skills?*
Invited Speaker, Mercer Distinguished Lectures, Rensselaer Polytechnic Institute (RPI), Troy, November 2017

13) *When Can a Computer Improve Your Social Skills?*
Invited Speaker, The Society for Affective Science, Boston, April 2017

14) An Automated Tool to Teach Social Engagement Skills for Older Adults
Keynote Speaker, Int. Conference on Medical Engineering, Health Informatics and Technology , Dhaka, 2016

15) *Behavior Mining to Model Social Interactions*
Keynote Speaker, IEEE International Conference on Intelligent Human-Computer Interaction, Allahabad, India, 2015.

Other Invited Presentations

1) *Multimodal AI in Digital Health – Transforming Parkinson's Disease Management*
SDAIA Winter AI School, December 2024

2) *Empowering Patients through AI: Enhancing Communication and Engagement in Neuroscience*
"Exploring the Bidirectional Relationship Between AI and Neuroscience", The National Academies, March 2024

3) *AI and Machine Learning in Health*
Winter Enrichment Program (WEP), King Abdullah University of Science and Technology (KAUST), January 2024

4) *High-Level Policy Panel on the 3 Pillars of the Global Initiative-AI4H*
Global Initiative on AI for Health, World Health Organization (WHO), Riyadh, Saudi Arabia, November 2023

5) *AI to Enable Neurological Care Available Anytime, Anywhere*
Department of Neuroscience, King Faisal Hospital, Riyadh, Saudi Arabia September 2023

6) *AI to Enable Neurological Care Available Anytime, Anywhere*
General Services Administration (GSA), Responsible AI event, July 2023

7) *Augmenting human touch in healthcare through AI*
KAUST Smart-health initiative seminar series, Saudi Arabia, February 2023

8) *AI to aid doctors to have difficult conversations with late-stage cancer patents*
Invited Speaker, National Academy of Medicine, Emerging Leaders Forum April 2022

9) *AI to amplify clinicians abilities: End of life communication, Teleneurology*
Invited Speaker, Roche, October 2021

10) *Application of multimodal communication in heath and medicine*
Invited Speaker, Spotify, June 2021

11) *Computing to quantify the secret code of human activity*
Invited speaker, Eco health Alliances, January 2021

12) *Trustworthy AI*
Dialogue on AI, Virtual meeting by the G20 Digital Economy Taskforce (DETF)
Invited Speaker, June 2020

13) *The Future of Negotiations*
Working Conference on AI, Technology and Negotiation, Harvard Law School
Invited Speaker, May 2020

14) *Upskilling the future workforce using AI*
EU-US Frontiers of Engineering (FOE) Symposium organized by the National Academy of Engineering, Stockholm, Sweden, Nov 2019.

15) *AI to improve human ability*
Invited Speaker, Army Research Lab (ARL), Adelphia, MD, April 2019

16) *Computers to help with conversations*
Invited Speaker, EmTech, MIT Tech Review, October 2016,

17) *Behavior Mining to Model Social Interactions*
Affectiva, Waltham, MA, November 2016
MEL Talks, Rochester, NY, Invited Speaker, October 2015

18) *Nonverbal behavior processing for health analytics*
Xerox Research Lab, Webster, NY

19) *Nonverbal behavior processing to model social interactions*
US Army Research Lab, Adelphia, MD, October 2014

20) *Social Skills Training as a new assessment tool*
Educational Testing Services (ETS), Princeton, NJ, October 2013

21) *Computers to help with conversations: affective framework to enhance social skills.*
Defense Advanced Research Projects Agency (DARPA), Arlington, VA, October 2013

Department Seminars

1) Advancing Health Equity and Access Using AI
   The UTSA AI consortium for Human Well-being February 2022
2) Leveraging IoT to ensure equity in aging: Applications to Parkinson's disease and end-of-life counseling
   MIT IoT seminar series, May 2021
3) *Ensuring equity in aging: using AI for Parkinson's disease treatment and end-of-life counselling*
   Computer Science Colloquium speaker, Johns Hopkins University, April 2021
4) *When Can a Computer Improve Your Social Skills?*
   Goergen Institute for Data Science Summer Colloquium, University of Rochester, June 2018
   Cognitive Science Seminar, SUNY Buffalo, February 2018
   Language Technologies Institute (LTI), Carnegie Mellon University, Pittsburgh, December 2017
   GVU Center Brown Bag, Georgia Tech, Atlanta, November 2017
   Colloquium Speaker, University of Pennsylvania, Philadelphia, November 2017
   AI/Cognitive Technologies Speaker Series, Rochester Institute of Technology, September 2017
   School of Science and Mathematics, SUNY Brockport, 2016
   Wellbeing Seminar Series, MIT Media Lab, October 2016

5) *Behavior Mining to Model Social Interactions*
   Invited Speaker, Cornell University, Ithaca, NY, March 2016
   Laboratory for Laser Energetics (LLE) Science and Technology (S&T) seminar series, Rochester, NY

6) *You're hired: When emotion meets behavioral health*
   Department of Psychiatry, University of Rochester, NY, July 2014.
   Department of Family Medicine, University of Rochester, NY, June 2014

Talks before 2013

1) *You're hired: When emotion meets behavioral health*
   Disney Research, Pittsburgh, PA, April 2013
   Disney Imagineering, Glendale, CA. April 2013
   Dartmouth College Computer Science, March 2013
   Stony Brook University Computer Science, March 2013
   University of Rochester Computer Science, March 2013
   Microsoft Research, Redmond, WA, February 2013
   Haas School of Business, University of California, Berkeley, February 2013

2) *Designing Emotionally Intelligent Systems that Assist*
   Palo Alto Research Center (PARC), Palo Alto, CA, January 2013
   FXPAL, Palo Alto, CA, January 2013

3) *Mood Meter: Counting Smiles in the Wild*
   TEDxNewHaven, Yale University, CT, April 2012

4) *Exploring Temporal Patterns towards Classifying Frustrated and Delighted Smiles*
Stanford Department of Communications, Stanford, CA, July 2012
Signal Analysis and Interpretation Lab (SAIL), University of Southern California, CA, July 2012
Robotics Research Lab, University of Southern California, CA, July 2012
Honda Research, Mountain View, CA, July 2012

5) *Affective Computing for Human-Robot Interactions*
LornaLAB, Reykjavik, Iceland, March 2012.

6) *Social-Communicative Coach – ideas and possibilities*
LIMSICNRS, Orsay, France, November, 2011.

7) MIT Mood Meter: A Computer Vision System to Track Mood of the Masses
MIT Brain and Cognitive Science Department, MA, July 2011

8) Computerized Games to Enhance Speech Intelligibility in Children on the Autism Spectrum
Nancy Lurie Marks Family Foundation (NLMFF), Boston, October, 2009

TEACHING EXPERIENCE

Term	Course Number & Title	Number of Students	Comments	Evaluation* (Teaching skills)
Spring 2023	CSC 260/460: The role of technology in climate change and human health	10	N/A	4.9/5.0
Fall 2022	CSC 212/412: Human-Computer Interaction	55	N/A	4.9/5
Fall 2021	CSC 260/460: The role of technology in climate change and human health	16	New course	4.8/5
Spring 2021	CSC 212/412: Human-Computer Interaction	65	Focus on bias and fairness	4.7/5
Fall 2020	CSC 575: Living during a pandemic: Can AI help mitigate it?	12	New course	4.5/5
Spring 2020	CSC 212/412: Human-Computer Interaction	55	Focus on AI and Ethics	4.6/5
Spring 2019	CSC 212/412 Human-Computer Interaction	65	Focus on future of work	4.0/5.0
Fall 2017	CSC 212/412 Human-Computer Interaction	60	N/A	4.4/5.0
Fall 2017	CSC 576 Intervention Strategies for Health Applications	11	New course	4.1
Spring 2017	CSC 212/412 Human-Computer Interaction	65	New pre-requisite of AI	4.5/5.0
Spring 2017	DSC 531 Practicum In Data-Enabled Research Into Human Behavior And	10	NSF NRT class	4.1/5

	Its Cognitive & Neural Mechanisms			
Fall 2015	CSC 212/412 Human-Computer Interaction	60	N/A	4.3/5.0
Spring 2015	CSC 575 Interactive Machine Learning	12	New course	4.2
Fall 2014	CSC 212/412 Human-Computer Interaction	44	New pre-requisite	4.6/5.0
Fall 2013	CSC 212/412 Human-Computer Interaction	48	New Syllabus	3.2/5.0

**the ratings reflect the weighted average between the undergrad and graduate sections*

Curriculum development

Development of a new graduate training through a $3M NSF NRT grant: As the PI, I helped establish graduate training in data-enabled research into human behavior and its cognitive and neural mechanisms. The training established a cohort of 12-15 graduate students in Computer Science and Brain and Cognitive Sciences every year taking on hands-on training on the computational foundation of data science (e.g., machine learning, computational neuroscience, cognitive modeling, statistics). Details at http://www.sas.rochester.edu/dsc/graduate/nrt.html

CSC 260/460: Technology and climate change: I designed this class to identify the intersection in which computational toolkits would have a significant utility in combating climate change.

CSC575: Living during a pandemic: Can AI help mitigate?: Through a generous grant from the Wadsworth C Sykes award, I designed this class to study the pandemic through political, geographical, and socio-economical lenses to identify the positive impact of AI as well as the consequential harm in combating the coronavirus on a global scale. Details at www.livingduringapandemic.com

CSC 576 Intervention Strategies for Health Applications: I designed this class to answer the question of how do we go from prediction, tracking, and diagnosis of a condition to successfully intervene? How do we harness the data to further empower the end users to be in control of their health? The students studied the latest intervention strategies specifically in the context of health applications.

ADVISING *(underrepresented and minority students are marked with *)*

PhD students (current)

1) Kurtis Haut – *NSF NRT fellowship, DoD Smart fellowship*
2) Ben Kane – co-supervised with Lenhart Schubert
3) Saiful Islam – *Google Ph.D. fellowship*
4) Masum Hasan
5) Adiba Mahbub*
6) Tariq Adnan
7) Raye Liu*
8) Neeley Pate* –*Provost's fellowship, GFSD Fellowship*
9) Pai Liu

Postdoc/programmers/coordinators

1) Abdelrahman Abdelkader, *research programmer*
2) Sarrah Hussain, *research coordinator*

Alumni

Ph.D. students

1) Wasifur Rahman (2023): Research Scientist, Amazon
2) Raiyan Baten (2022): Assistant Professor, Computer Science, University of South Florida--AAAC Outstanding PhD Dissertation Award 2023
3) Kamrul Hasan (2022): Research Scientist, META
4) Taylan Sen (2021): Assistant Professor, Computer Science, Niagara University
5) Samiha Samrose* (2021): Research Scientist, Read.AI
6) Rafayet Ali (2020): Research Scientist, Sysco.
7) Anis Zaman (2020, co-advised w/ Henry Kautz): Research Scientist at eBay
8) Iftekhar Tanveer (2019): Research Scientist, Spotify

Postdocs and research scientists:

9) Amir Zadeh (2024)
10) Raiyan Abdul Baten (2023): Assistant Professor, Computer Science, University of South Florida
11) Rafayet Ali (2021): Research Scientist, Sysco
12) Reza Rawassizadeh (2019): Assistant Professor, Metropolitan College, Boston University
13) Rui Li (2016): Assistant Professor, Rochester Institute of Technology (RIT)

MS students

14) James Spann* (Computer Science) –*Provost's fellowship*
15) Daryl Bagley*
16) Facundo Ciacio
17) Agustin Baretto
18) Yina Jin*

Current Thesis Committee Member

1) Xiaofei Zhou, Ph.D. thesis in Computer Science, 2019-current; Advisor: Zhen Bai
   Thesis title: Empower K-12 STEM Education with Machine Learning as a Discovery Tool

Past Thesis Committee Member

1) Lele Chen, Ph.D. thesis in Computer Science, 2016-current; Advisor: Chenliang Xu
   Thesis title: High-Fidelity Talking Avatar Video Generation
   First employment: Innopeak Technology

1) Zhengyuan Yang, Ph.D. thesis in Computer Science, 2018-current; Advisor: Jiebo Luo
   Thesis title: Language-based visual content search and localization with applications in human-centered search tasks
   First employment: Microsoft Research

2) Jesse Wang, Ph.D. thesis in translational biomedical sciences, 2018-current; Advisor: Henry Kautz
   Thesis title: Digital Scribe

3) Joanne Leong*, MS thesis in Media Arts and Sciences, MIT, 2021 Advisor: Pattie Maes
Thesis title: *Investigating the Use of Synthetic Media and Real-Time Virtual Camera Filters for Supporting Communication and Creativity*

4) Chris Bates, Ph.D. thesis in Brain and Cognitive Science, 2015-2020; Advisor: Robert Jacobs
Thesis title: Efficient Data Compression in Human Perception
First employment: Postdoc, Harvard University

5) Xiong Zhang, Ph.D. thesis in Computer Science, 2017-current; Advisor: Philip Guo
Thesis title: Interactive Programming using Webpages as Substrates
First employment: Facebook

6) Brian Dickinson, Ph.D. thesis in Computer Science, University of Rochester, 2020; Advisor: Henry Kautz
Thesis title: *Improving our Understanding of Society through Global Patterns of Human Mobility*
First employment: Assistant Professor of Computer Science, Grove City College, Pennsylvania.

7) Quanzeng You, Ph.D. thesis in Computer Science, University of Rochester, 2017; Advisor: Jiebo Luo
Thesis title: *Sentiment and Emotion Analysis for Visual and Multimedia Content: Methodologies and Applications*
First Employment: Microsoft Research

8) Anna Loparev*, Ph.D. thesis in Computer Science, University of Rochester, 2015; Advisor: Henry Kautz
Thesis title: *The Impact of Collaborative Scaffolding in Educational Video Games on the Collaborative Support Skills of Middle School Students*
First Employment: Postdoc at Wellesley College

9) Iftekhar Naim, Ph.D. thesis in Computer Science, University of Rochester, 2015; Advisor: Daniel Gildea
Thesis title: *Unsupervised Alignment of Natural Language with Video*
First Employment: Google

10) Na Yang*, Ph.D. thesis in Computer Engineering, University of Rochester, 2015; Advisor: Wendi Heinzelman
Thesis title: *Algorithms for Affective and Ubiquitous Sensing Systems and for Protein Structure Prediction*
First Employment: Dell

11) Daniel Scarafoni, MS thesis in Computer Science, 2015; Advisor: Philip Guo
Thesis Title: AI Backed Crowd-Sourced How-to Manuals
First Employment: MIT Lincoln Lab

12) Jacqueline Kory*,MS thesis in Media Arts and Sciences, MIT, 2014; Advisor: Cynthia Breazeal
Thesis title: *Adaptive robotic learning companions for children's language development through storytelling and play*

Current Undergraduate Research Advisees with publications

1) Stela Ciko*, Computer Science
2) Sangwu Lee (*winner of IOTA book award),* Computer Science
3) Sammy Potter, Computer Science

Past Undergraduate Research Advisees with publications

1) Adira Blumenthal* (Computer Science 2023)
2) Dillanie Sumanthiran* (Computer Science 2023) – *graduate student at Cornell Tech*
3) Sarah Atterbury* (Computer Science 2022) – *BNY Mellon*
4) Boyu Zhang (Computer Science 2021) – *graduate student at MIT*
5) Victor Anthony (Computer Science 2021) – *graduate student at the Johns Hopkins University*
6) Ashely Tenesaca* (Computer Science 2021) – *graduate student at the University of Maryland*
7) Emmanuel Natalie* (Computer Science 2021) - *Panalgo*
8) Melissa Welsh* (Computer Science 2021) - *Appian*
9) Carolina He* (Computer Science) – *Bank of America*
10) Syeda Sarah Shahrin*, Computer Science
11) Gazi Naven Ahmed (Data science, 2020) - *OST*
12) Luke Gerstner* (Data Science 2020) - *Rosen*
13) Jianyuan Zhong (Computer Science 2020) - *MILA*
14) Shagun Bose*(Computer Science 2020) - *Intuit.*
15) Qianyi Li*(Computer Science 2020) - *graduate student in Business Analytics, Fuqua School of Business, Duke U.*
16) Yuebai Gao*, (Computer Science 2020) - *graduate student at Computational Finance, Georgia Tech*
17) Denis Lomakin (Computer Science 2020) - *Amazon*
18) Melissa Wen* (Brain and Cognitive Science 2020)
19) Minh Tran, (Computer Science 2020) – *graduate student at the University of Southern California*
20) Wenyi Chu* (Computer Science 2019) – *graduate student at Cornell University*
21) Famous Clark* (Computer Science *2019*) – *graduate student at the University of Rochester*
22) Duy Nguyen *(*Computer Science 2019) – *graduate student at UT Austin*
23) Raina Langevin* (Computer Science 2018) – *graduate student at University of Washington*
24) Vivian Li* (Computer Science 2017), *Factset*
25) Luis Nova*, (Computer Science, 2017) – *Golden Artist Colors*
26) Chen Kezen (Computer Science, 2016) – *Graduate student at Northwestern University.*
27) Zoe Tiet* (Computer Science, 2016) - *Spotify*
28) Tergel Purevdorj* (Computer Science, 2016*)* - *Apple*
29) Emy (now known as Finn) Lin*, (Computer Science, 2015) – *Intel.*
30) Morgan Sinko, (Computer Science, 2015) – *CEO, NullSpace*
31) Alex Wilson (Computer Science, 2015) – *Lose It !*
32) Ru Zhao, (Computer Science, 2015) – *PhD student at Cornell Uni.*
33) Michelle Fung*, (graduated in 2013 from MIT)– *University of Rochester.*
34) Joseph Lane, (Graduated in 2010 from MIT) – *Fastcap Systems*

Past undergrads hired and supervised from outside of University of Rochester using NSF REU

1) Astha Singhal* (2017) – University of Maryland
2) Ethan Cole (2017) – University of Michigan, Ann Arbor
3) Nicole Gates* (2018) – Wellesley College
4) Alex Berry (2018) – Middlebury College – *graduate student at Brown University*
5) Alexander Giacobbi* (2019) – Gonzaga University
6) Spencer Thomas (2019) – Brandeis University

Past high school students hosted in my lab

1) John Bisognano (student at the Pittsford Sutherland School) – Pursued a BS in Computer Science at the Washington University, St. Louis.

PRESS/MEDIA COVERAGE

Selected News on Parkinson's disease research

UofR News, Online AI-based test for Parkinson's disease severity shows promising results (2023)
https://www.rochester.edu/newscenter/ai-test-for-parkinsons-disease-severity-566772/

UofR News, Software uses selfies to detect early symptoms of Parkinson's disease (2022)
https://www.rochester.edu/newscenter/parkinsons-disease-symptoms-early-diagnosis-algorithm-501592/

The National Academies, Decoding the unspoken ways we communicate
https://www.nationalacademies.org/news/2020/08/decoding-the-unspoken-ways-we-communicate

Healio, Selfies may help identify Parkinson's disease (2022)
https://www.healio.com/news/neurology/20211130/selfies-may-help-identify-parkinsons-disease

Neurology today, Facial Analysis Software Helps Screen for Parkinson's Disease Where It Is Now and Where It Needs to Go (2022)
https://journals.lww.com/neurotodayonline/Fulltext/2022/01060/Facial_Analysis_Software_Helps_Screen_for.9.aspx

WXXI News, Unlocking Parkinson's, one selfie at a time (2022)
https://www.wxxinews.org/local-news/2022-01-10/unlocking-parkinsons-one-selfie-at-a-time

Parkinson's News, Video Selfies May One Day Help in Diagnosing Parkinson's (2022)
https://parkinsonsnewstoday.com/2021/12/03/parkinsons-diagnosis-might-use-facial-masking-detected-video-selfies/

Selected News on the end-of-life communication (TAC 2021, ACII 2019, 2017)

UofR News, A new way to prepare doctors for difficult conversations
https://www.rochester.edu/newscenter/virtual-patient-sophie-prepares-doctors-for-end-of-life-conversations-485392/

The National Academies, Decoding the unspoken ways we communicate
https://www.nationalacademies.org/news/2020/08/decoding-the-unspoken-ways-we-communicate

Healio, AI platform enables oncologists to practice conversations with terminally ill patients
https://www.healio.com/news/hematology-oncology/20220215/ai-platform-enables-oncologists-to-practice-conversations-with-terminally-ill-patients

Selected News on networks analysis (Scientific Reports 2021, Royal Society Interface 2020)

UofR News, Can social networks help us be more creative
https://www.rochester.edu/newscenter/can-social-networks-help-us-be-more-creative-463492/

Selected News on the ADDR framework and deception research (UbiComp 2018 and FG 2018)

UofR News, Using data science to tell which of these people is lying
http://www.rochester.edu/newscenter/data-science-facial-expressions-who-if-lying-321252/

Newsweek, How to Spot a Liar: Experts Uncover the Signs of Deception-Can you see them?
http://www.newsweek.com/how-spot-liar-experts-uncover-real-signs-deception-can-you-spot-them-941954

DailyMail, Can YOU spot the liar? Researchers develop online game to help AI crack down on racial biases by analyzing over a million faces
http://www.dailymail.co.uk/sciencetech/article-5763591/Can-spot-liar-Play-online-game-AI-using-analyze-million-faces.html

WXXI News, UR research on lie detection could help at airports
http://wxxinews.org/post/ur-research-lie-detection-could-help-airports

The Times, Facial Software knows if you have something to hide
https://www.thetimes.co.uk/article/facial-software-knows-if-you-have-something-to-hide-wsjps63r0

Selected News Article on 10 Scientists to Watch (2017)

Science News, M. Ehsan Hoque develops digital helpers that teach social skills
https://www.sciencenews.org/article/m-ehsan-hoque-sn-10-scientists-to-watch?mode=pick&context=2771

UofR News, Ehsan Hoque, among '10 Scientists to Watch,'is a study in resiliency
http://www.rochester.edu/newscenter/ehsan-hoque-10-scientists-watch-computer-science-272272/

Selected News Articles on MIT TR35 Award (2016)

MIT Tech Review, If you want to be the life of the party, practice by talking to a machine first
https://www.technologyreview.com/lists/innovators-under-35/2016/humanitarian/ehsan-hoque/

Financial Times, Hail the algorithms that decode human gestures
https://www.ft.com/content/6b23399a-743c-11e6-bf48-b372cdb1043a

UofR News, Ehsan Hoque: MIT Technology Review Innovator under 35
http://www.rochester.edu/newscenter/ehsan-hoque-an-mit-innovator-under-35-177152/

Selected News Articles on VowelShape (UbiComp 2015)

UofR News, Computer Science Students Help Singers Learn Their Vowels
http://www.rochester.edu/news/show.php?id=8422

WXXI News, New App for Singers and Teachers
http://wxxinews.org/post/new-app-singers-and-teachers

Selected News Articles on ROC Speak (UbiComp 2015)

Microsoft Research Blog, Cloud computing changes the way we practice public speaking
https://www.microsoft.com/en-us/research/cloud-computing-changes-way-practice-public-speaking/

UofR News, ROC Speak: Using machine learning analysis to help people improve communication skills
http://www.cs.rochester.edu/news-events/news/2016-06-16_mhoque-microsoft.html

Selected News Articles, and TV Programs about Rhema (IUI 2015)

UofR News, Wearable technology can help with public speaking, Homepage spotlight, 2015
http://www.rochester.edu/newscenter/wearable-technology-can-help-with-public-speaking-95552/

WXXI News, WATCH: Smart Glasses App Helps Tame the Fear of Public Speaking, 2015
http://wxxinews.org/post/watch-smart-glasses-app-helps-tame-fear-public-speaking

New York Magazine, Meet the Star of TED 2020: A Glass App That Coaches You As You Talk, 2015
http://nymag.com/next/2015/03/meet-the-star-of-ted-2020-glass-app-public-speaking-coach.html

Selected News Articles, TV and Radio Programs about MACH (UbiComp 2013)

MIT News, Automated 'coach' could help with social interactions, **MIT Homepage spotlight**, 2013
http://web.mit.edu/press/2013/automated-coach-could-help-with-social-interactions.html

MIT Technology Review, Robo-Coach: Software helps hone social skills, 2013
http://www.technologyreview.com/article/517851/robo-coach/

CTV News, Canada AM, New online device classes up people with poor social skills (originally aired July 3, 2013)
http://www.theglobeandmail.com/life/life-video/video-new-online-device-classes-up-people-with-poor-social-skills/article12946780/

WGBH, Boston Public Radio, Could you use a little polish in job interviews (Radio show), 2013.
http://www.wgbhnews.org/post/summer-camps-not-what-it-used-be

CJAD, Montreal Radio, Are you socially awkward? There's an app for that! (originally aired July 17, 2013)
http://media.cjad.com/Podcasts/2392/Aaron%20R%20July%2017%20PODCAST1148492672.mp3

Selected News Articles about Temporal Modeling of Smiles (FG 2011, IEEE Transactions on Affective Computing)

MIT News, Is that smile real or fake? **MIT Homepage spotlight**, 2012.
http://web.mit.edu/newsoffice/2012/smile-detector-0525.html

MIT Technology Review, Delight or Frustration? Tough Call, 2012
http://www.technologyreview.com/mitnews/428768/delight-or-frustration-tough-call/

Time, MIT Researchers Decode Your Smile, 2012.
http://newsfeed.time.com/2012/05/29/mit-researchers-decode-your-smile/

The Atlantic, What It Means That Computers Can Tell These Smiles Apart, But You Can't, 2012.
http://www.theatlantic.com/technology/archive/2012/05/what-it-means-that-computers-can-tell-these-smiles-apart-but-you-cant/257686/

NPR, What's In A Smile? Turns Out Computers Best Humans At Parsing What's Genuine, 2012.
http://www.npr.org/blogs/thetwo-way/2012/05/25/153731400/whats-in-a-smile-turns-out-computers-best-humans-at-parsing-whats-genuine

The Telegraph, Computers better at spotting fake smiles than humans, 2012.
http://www.telegraph.co.uk/science/science-news/9290250/Computers-better-at-spotting-fake-smiles-than-humans.html

Wall Street Journal, How to End the Age of Inattention, 2012.
http://online.wsj.com/article/SB10001424052702303640104577436323276530002.html

Selected News Articles, and TV Programs about MIT Mood Meter (UbiComp 2012)

MIT News, Smile, MIT! You're on the Mood Meter, 2011.
http://tech.mit.edu/V131/N25/moodmeters.html

New Scientist, Face-reading software to judge the mood of the masses, 2012.
http://www.newscientist.com/article/mg21428665.400-facereading-software-to-judge-the-mood-of-the-masses.html

PBS News hour, Photo Essay: Furry Robots, and More Innovations from MIT's Media Lab, 2011.
http://www.pbs.org/newshour/multimedia/medialab/8.html

Popular Science, MIT Meter Measures the Mood of Passers-By, 2011.
http://www.popsci.com/technology/article/2011-11/mit-meter-measures-mood-passers

PROFESSIONAL AFFILIATION

National Academy of Medicine (NAM)
Emerging Leader in health and medicine (2020-2023)

ACM Future of Computing Academy (ACM FCA)
Inducted in June 2017

Association for the Advancement of Artificial Intelligence (AAAI)
Life and senior member

Association for Computing Machinery (ACM)
Life member

Institute of Electrical and Electronics Engineers (IEEE)
2010-present

American Association for the Advancement of Science (AAAS)
2017-present

The Association for the Advancement of Affective Commuting (AAAC)
2017-present