Meredith Moore, Ph.D.

Curriculum Vitae

Education

2015-May **Doctorate of Philosophy**, Arizona State University, Tempe, AZ, GPA: 3.90.

2020 Computer Science: Human-Computer Interaction, Accessibility, Machine Learning, Artificial Intelligence

Dissertation: "I'm having trouble understanding you right now": A Multidimensional Analysis of the Intelligibility of Dysphonic Speech

2011–2015 Bachelors of Science, Drake University, Des Moines, IA, GPA: 3.70.

Neuroscience and Computer Science

Work Experience

2020 - now Assistant Professor of Computer Science

Institution Drake University, Des Moines, IA

Description [3 years of experience]

- Taught courses covering Introduction to Computer Science, Machine Learning, Human-Computer Interaction, the Computer Science Capstone and Independent Studies.
- Pursued impactful service commitments to broaden the participation of historically underrepresented groups in computing.
- Utilized cutting-edge pedagogical research to implement strategies to ensure equitable participation.
- Led undergraduate research groups involving 20+ students in projects centered around Human Centered Machine Learning.
- Served as an academic advisor for 30+ students a semester
- Mentored undergraduate students who are part of historically underrepresented groups

2019-2020 UX Researcher II at GoDaddy

Description [1+ years of experience]

- Collaborated with interdisciplinary stakeholders to understand the research need-PMs, PMMs, UX Designers, Business Intelligence, etc.
- Designed a wide variety of qualitative and quantitative studies to answer research questions.
- Synthesized compelling and creative insights for multiple products.
- Communicated findings to a variety of audiences, from small teams to executives.

2015-2020 Research Assistant in Center for Cognitive Ubiquitous Computing

Supervisor Dr. Sethuraman Panchanathan

Description [5 years Exp.] For the duration of my Ph.D. I have been funded as a Research Assistant for the Center for Cognitive Ubiquitous Computing (CUbiC).

Internships

Summer 2019 UX Research Intern at GoDaddy

Supervisor Cassie Mally

Description Designed studies to generate insights into how GoDaddy customers use our products.

Interacted with 2081 customers on 4 different products.

Summer 2014 Research Intern at the Rehabilitation Institute of Chicago (now ShirleyRyan Ability Lab)

Supervisor Dr. William 'Zev' Rhymer

Description Using a depth camera and **Unity**, I developed a video game for upper extremity rehabilitation post-stroke.

Summer 2013 Research Intern University of California, Berkeley Research Experience for Undergraduates

Supervisors Dr. Jose Carmena and Dr. Helene Moorman

Description I reconstructed arm-positions from a motion-capture system to model upper extremity movement to eventually be correlated with neural recordings.

Awards and Achievements

Grants and Scholarships

2023 Drake University Arts and Sciences Travel Grant, \$1500.

Drake University Professional Development Collaboration Grant, \$2500.

Drake University Arts and Sciences Travel Grant (TAPIA), \$1500.

Nelson Institute Global Pressing Issues Grant, \$30000.

SLAY Fund Grant for Inclusive Scholars of Digital Proficiency, \$7805.

2022 NSF AccessComputing Minigrant for The CodeAbility Podcast, \$4750.

NSF Broadening Participation in Computing Workshop Travel Funding, \$1100.

SLAY Fund Grant for Inclusive Scholars of Digital Proficiency, \$7805.

Teach Access Curriculum Development Grant, \$5000.

- 2021 Teach Access Curriculum Development Grant, \$5000.
- 2019 **Graduate School Professional Association Travel Grant Recipient**, Arizona State University, \$850.

To travel to Interspeech 2019 in Graz, Austria

Grace Hopper Celebration Scholarship Recipient, \$2000, GoDaddy.

2018 **Graduate School Professional Association Travel Grant Recipient**, Arizona State University, \$850.

To travel to Interspeech 2018 in Hyderabad, India

- 2017 **Women in Machine Learning Travel Grant Recipient**, *\$300*, Neural Information Processing Systems.
- 2016 ACM ASSETS Doctoral Consortium Participant Scholarship Recipient, \$2000.
- 2015-2017 **Grace Hopper Celebration Scholarship Recipient**, *(3) \$1500 scholarships*, Arizona State University.

Fellowships

- 2015-2019 **National Science Foundation Graduate Research Fellow**, *Computer and Information Science Engineering*, Human Computer Interaction.
- 2015-2018 National Science Foundation Integrated Graduate Education Research Traineeship Associate, Alliance for Person Centered Accessible Technologies (APAcT), Arizona State University.
- 2015-2020 Arizona State University Dean's Fellow, Arizona State University.

Other Awards

- 2016-2018 Integrated Graduate Education Research Traineeship (IGERT) Student Leader, Alliance for Person Centered Accessible Technologies (APAcT), Arizona State University.
 - 2014 Outstanding Computer Science Student of the Year, College of Arts and Sciences, Drake University.
 - 2013 **Outstanding Neuroscience Student of the Year**, *College of Arts and Sciences*, Drake University.

Publications

Conference Presentations

- 2024 **M. Moore** and T. Urness "Inclusive Practices and Universal Design in the Computer Science Classroom". Under review. CCSC Midwest Regional Computer Science Conference 2024.
- 2023 TAPIA 2023 Birds of a Feather Organizer, "Tips and Tricks for Supporting Neurodivergent Students in the Compute Science Classroom"
- 2022 **M. Moore** and T. Urness "Strategies for Equitable Participation in an Introductory Computer Science Course". CCSC Midwest Regional Computer Science Conference 2022. University of Wisconsin, Menomonie. October 6-8, 2022.
- 2020 **M. Moore**, P. Papreja, and M. Saxon, V. Berisha and Se. Panchanathan "UncommonVoice: A Crowdsourced Dataset of Dysphonic Speech". Proc. Interspeech 2020. Shanghai, China (attended virtually). October 25-29. [paper | presentation]
- 2019 M. Moore, M. Saxon, T. McDaniel, V. Berisha S. Panchanathan. "The Blind Date: Improving the Accessibility of Mobile Dating Platforms for Individuals with Visual Impairments". IEEE GlobalSIP Symposium on Signal and Information Processing for Person-centered and Citizen-centered Smart Living. 2019, Ottowa, Canada. Nov 14. [paper | blog]

- 2018 **M. Moore**, T. McDaniel, S. Panchanathan. "Evaluating the Need for Voice-Assistive Technologies". Workshop on Speech Processing for Voice Disorders (WSPD), Mysore, India. Sept 8-9, 2018.
- 2018 **M. Moore**, H. Venkateswara, S. Panchanathan. "Whistle blowing ASRs: evaluating the need for more inclusive speech recognition systems". Interspeech 2018, Hyderabad, India. Sept 2-6, 2018. [paper]
- 2018 **M. Moore** "Designing Voice-Assistive Technologies: Enhancing the Intelligibility and Quality of Pathological Speech". Interspeech Doctoral Consortium 2018, Hyderabad, India. Sept 1, 2018.
- 2018 **M.Moore**. "Evaluating the Needs of Individuals with Spasmodic Dysphonia for the Design of Voice-Assistive Technologies", National Spasmodic Dysphonia Association 2018 National Symposium
- 2018 K. Glattke, B. Fakhri, C. Heath, **M.Moore**, and M. Rahimi. *Design of an Enhanced Disc Golf Game to Facilitate Players with Visual Impairments*, Conference on Applied Human Factors and Ergonomics (AHFE) 2018. Orlando, Florida.
- 2016 M.Moore. "TranslatAble: Giving Individuals with Complex Communication Needs a Voice through Speech and Gesture Recognition". ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '16) Doctoral Consortium Participant, Reno, NV, 2016.

Book Chapters

- 2021 **M. Moore**. (2021) Speech Recognition for Individuals with Voice Disorders. *Multimedia for Accessible Human Computer Interfaces*. Springer Publishing. *Book Chapter to be published early 2021*.
- 2018 S. Panchanathan, M.Moore, H.Venkateswara, S.Chakraborty, T. McDaniel. "Computer Vision for Augmentative Alternative Communication." Computer Vision for Assistive Healthcare. p. 211-248. Elsevier. 2018
- 2018 K. Glattke, B. Fakhri, C. Heath, M.Moore, and M. Rahimi. Design of an Enhanced Disc Golf Game to Facilitate Players with Visual Impairments, International Conference on Applied Human Factors and Ergonomics, 328-335

Posters

- 2017 M.Moore, H. Venkateswara, S. Panchanathan. "A Reinforcement Learning System for Dysarthric Speech Enhancement". Women in Machine Learning Workshop. Neural Information Processing Systems (NIPS) 2017, Long Beach, CA
- 2016 M.Moore, S. Panchanathan. "TranslatAble: Giving Individuals with Complex Communication Needs a Voice through Speech and Gesture Recognition". ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '16), Reno, NV, 2016.

Media Appearances

- 2022 **M. Moore**. "How Universities Can Recruit and Retain Diversity in Tech Fields". EdTech Magazine. August 2nd, 2022. [article]
- 2021 "The Ones Educating for a Digital World". Drake Digital Proficiency Program |
 The Ones Campaign. [article]

Teaching Experience

College Courses

- 2024 **Instructor** CS120: Human Computer Interaction, *Drake University, Spring 2024 (2 sections)*
- 2023 **Instructor** Al010: Interdisciplinary Perspectives on Artificial Intelligence, *Drake University, Fall 2023*

Instructor CS65: Introduction to Computer Science, *Drake University, Fall 2023 (2 sections)*

Instructor STEM280: Introduction to Computer Science for Teachers, *Drake University, Summer 2023*

Instructor CS167: Machine Learning, Drake University, Spring 2023 (2 sections)

Instructor CS191: Computer Science Capstone, Drake University, Spring 2023

Instructor CS167: Machine Learning, Drake University, January Term 2023

2022 Instructor CS65: Introduction to Computer Science Drake University Fall 2022

Instructor CS120: Human Computer Interaction Drake University Fall 2022

Instructor STEM280: Introduction to Computer Science for Teachers (in-service) *Drake University Summer 2022*

Instructor CS65: Introduction to Computer Science (two sections) *Drake University Spring 2022*

Instructor CS191: Computer Science Capstone Drake University Spring 2022

2021 Instructor CS167: Machine Learning (two sections) *Drake University Fall 2021*

Instructor CS195: Human Computer Interaction *Drake University Fall 2021*

Instructor CS167: Machine Learning (two sections) Drake University Spring 2021

2020 Instructor CS195: Human Computer Interaction Drake University Fall 2020

Instructor CS167: Machine Learning Drake University Fall 2020

Service

2023 Co-Director of the Inclusive Scholars of Digital Proficiency Scholarship Program

Drake University Crew Scholars Mentor

Women in STEM Faculty Mentor

Neurodivergent Club Faculty Mentor

The CodeAbility Podcast Host

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Drake University Crew Scholars Mentor

Women in STEM Faculty Mentor

Neurodivergent Club Faculty Mentor

The CodeAbility Podcast Host

2021 Drake University Women and Gender Studies Steering Committee Member Women in STEM faculty mentor

Drake Digital Proficiency Program Faculty Work Group Women and Gender Studies Steering Committee Member