

Jeffrey P. Bigham

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Appointments

Director July 2018 – present

Human-Centered Machine Intelligence and Responsible AI
Apple, Pittsburgh, PA

Associate Professor (w/ tenure 2016) September 2013 – present

Human Computer Interaction Institute and Language Technologies Institute
Carnegie Mellon University, School of Computer Science, Pittsburgh, PA

Assistant Professor July 2009 – August 2013

Department of Computer Science
University of Rochester, Rochester, NY

Education

Ph.D., Computer Science and Engineering, University of Washington – 2009

Thesis: *Intelligent Interfaces Enabling Blind Web Users to Build Accessibility Into the Web*
Committee: Richard E. Ladner (chair), Tessa Lau, Ed Lazowska, and Jacob O. Wobbrock

M.Sc., Computer Science and Engineering, University of Washington – 2005

Thesis: *Boosting Relation Extraction Recall with Soft Rules*
Advisor: Oren Etzioni

B.S.E., Computer Science, Princeton University – 2003

Thesis: *On Using Error-Correcting Codes and Boosting to Learn Multi-Class Classification Problems*
Advisor: Amit Sahai and Robert Schapire

Selected Awards

- ACM SIGCHI Academy (2026)
- ACM UIST Lasting Impact Award (2023)
- ACM SIGACCESS Paper Impact Award (2019)
- Alfred P. Sloan Research Fellowship (2014)
- NSF CAREER Award (2012)
- MIT Technology Review Top 35 Innovators Under 35 Award (2009)
- NSF Graduate Research Fellowship (Honorable Mention) (2004)

Refereed Journal Publications

19. Hadas Kotek, Leon Gatys, Margit Bowler, Yu'an Yang, Shruti Palaskar, Ciro Sannino, Gunnar Lund, Joseph Cheng, Robert Daland, Charlie Maalouf, and Jeffrey P. Bigham. Mention versus Action: Guiding Safety Policy for Content Related to Harmful Topics. *Proceedings of the Linguistic Society of America* (2026). [DOI \[link\]](#)
18. Stephanie Valencia, Matthew Steidl, Michael L. Rivera, Cynthia L. Bennett, Jeffrey P.

- Bigham, and Henny Admoni. Nonverbal Communication through Expressive Objects. *Communications of the ACM* (2024). DOI [\[link\]](#)
17. Chris Fleizach and Jeffrey P. Bigham. System-class Accessibility. *ACM Queue* (2024). DOI [\[link\]](#)
 16. Amanda Swearngin, Jason Wu, Xiaoyi Zhang, Esteban Gomez, Jen Coughenour, Rachel Stukenborg, Bhavya Garg, Greg Hughes, Adriana Hilliard, Jeffrey P. Bigham, and Jeffrey Nichols. Towards Automated Accessibility Report Generation for Mobile Apps. *ACM Transactions on Computer-Human Interaction* (2024). DOI [\[link\]](#)
 15. Mark Hasegawa-Johnson, Xiuwen Zheng, Heejin Kim, Clarion Mendes, Meg Dickinson, Erik Hege, Chris Zwilling, Marie Moore Channell, Laura Mattie, Heather Hodges, Lorraine Ramig, Mary Bellard, Mike Shebanek, Leda Sari, Kaustubh Kalgaonkar, David Frerichs, Jeffrey P Bigham, Leah Findlater, Colin Lea, Sarah Herrlinger, Peter Korn, Shadi Abou-Zahra, Rus Heywood, Katrin Tomanek, and Bob MacDonald. Community-Supported Shared Infrastructure in Support of Speech Accessibility. *Journal of Speech, Language, and Hearing Research* (2024). DOI [\[link\]](#)
 14. Jeffrey P. Bigham. Computation Where the (inter)Action Is. *Communications of the ACM* (2022). DOI [\[link\]](#)
 13. Luz Rello, Ricardo Baeza-Yates, Abdullah Ali, Jeffrey P. Bigham, and Miquel Serra. Predicting risk of dyslexia with an online gamified test. *PLOS ONE* (2020). DOI [\[link\]](#)
 12. Susumu Saito, Chun-Wei Chiang, Saiph Savage, Teppei Nakano, Tetsunori Kobayashi, and Jeffrey P. Bigham. Predicting the Working Time of Microtasks Based on Workers' Perception of Prediction Errors. *Human Computation* (2019). DOI [\[link\]](#)
 11. Ting-Hao K. Huang, Amos Azaria, Oscar J. Romero, and Jeffrey P. Bigham. Instructable-Crowd: Creating IF-THEN Rules for Smartphones via Conversations with the Crowd. *Human Computation* (2019). DOI [\[link\]](#)
 10. Jason Wu, Karan Ahuja, Richard Li, Victor Chen, and Jeffrey P. Bigham. ScratchThat: Supporting Command-Agnostic Speech Repair in Voice-Driven Assistants. *UbiComp Journal: ACM Journal on Interactive, Mobile, Wearable and Ubiquitous Technologies* (2019). DOI [\[link\]](#)
 9. Anhong Guo, Anuraag Jain, Shomiron Ghose, Gierad Laput, Chris Harrison, and Jeffrey P. Bigham. Crowd-AI Camera Sensing in the Real World. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* (2018). DOI [\[link\]](#)
 8. Cole Gleason, Dragan Ahmetovic, Saiph Savage, Carlos Toxtli, Carl Posthuma, Chieko Asakowa, Kris M. Kitani, and Jeffrey P. Bigham. Crowdsourcing the Installation and Maintenance of Indoor Localization Infrastructure to Support Blind Navigation. *UbiComp Journal: ACM Journal on Interactive, Mobile, Wearable and Ubiquitous Technologies* (2018). DOI [\[link\]](#)
 7. Walter S. Lasecki, Christopher D. Miller, Iftexhar Naim, Raja Kushalnagar, Adam Sadilek, Daniel Gildea, and Jeffrey P. Bigham. Scribe: Deep Integration of Human and Machine Intelligence to Caption Speech in Real Time. *Communications of the ACM* (2017). DOI [\[link\]](#)
 6. W. S. Lasecki and Jeffrey P. Bigham. Target Acquisition and the Crowd Actor. *Human Computation* (2015). DOI [\[link\]](#)

5. E. Brady and Jeffrey P. Bigham. Crowdsourcing Accessibility: Human-Powered Access Technologies. *Foundations and Trends in Human-Computer Interaction* (2015). DOI [\[link\]](#)
4. Lasecki, Walter S., Homan, Chris, and Jeffrey P. Bigham. Architecting Real-Time Crowd-Powered Systems. *Human Computation Journal* (2014). DOI [\[link\]](#)
3. M. Sims, Jeffrey P. Bigham, Henry Kautz, and Mark W. Halterman. Crowdsourcing Medical Expertise in Near Realtime. *Journal of Hospital Medicine* (2014). DOI [\[link\]](#)
2. Raja S. Kushalnagar, Walter S. Lasecki, and Jeffrey P. Bigham. Accessibility Evaluation of Classroom Captions. *ACM Trans. Access. Comput.* (2014). DOI [\[link\]](#)
1. Walter S. Lasecki, Samuel White, Kyle I. Murray, and Jeffrey P. Bigham. Crowd Memory: Learning in the Collective. *Collective Intelligence* (2012). DOI [\[link\]](#)

Refereed Conference Publications

168. Jeffrey P. Bigham. HIDAgent: A Platform-Agnostic Hardware Bridge for Personal Computer Use Agents. *Proceedings of the 39th Annual ACM Symposium on User Interface Software and Technology* (2026). DOI [\[link\]](#)
167. Valerie Sazonov, Yi-Hao Peng, Jeffrey P. Bigham, and Saelyne Yang. Towards Benchmarking Screen Reader Use in Computer Use Agents. *Adjunct Proceedings of the 39th Annual ACM Symposium on User Interface Software and Technology* (2026).
166. Atieh Taheri, Hamza El Alaoui, Patrick Carrington, and Jeffrey P. Bigham. “I followed what felt right, not what I was told”: Autonomy, Coaching, and Recognizing Bias Through AI-Mediated Dialogue. *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems* (2026). DOI [\[link\]](#)
165. 🏆 Peya Mowar, Aaron Steinfeld, and Jeffrey P. Bigham. iTagPDF: Towards Finally Automating PDF Accessibility. *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems* (2026). DOI [\[link\]](#) * **Best Paper Award** *
164. Shruti Palaskar, Leon Gatys, Mona Abdelrahman, Mar Jacobo, Larry Lindsey, Rutika Moharir, Gunnar Lund, Yang Xu, Navid Shiee, Jeffrey P. Bigham, Charlie Maalouf, and J. Y. Cheng. VLSU: Mapping the Limits of Joint Multimodal Understanding for AI Safety. *International Conference on Learning Representations (ICLR 2026)* (2026). [\[link\]](#)
163. Hua Shen, Tiffany Kneare, Reshmi Ghosh, Kenan Alkiek, Kundan Krishna, Yachuan Liu, Savvas Petridis, Yi-Hao Peng, Li Qiwei, Chenglei Si, Yutong Xie, Jeffrey P. Bigham, Frank Bentley, Joyce Chai, Zachary Lipton, Qiaozhu Mei, Michael Terry, Diyi Yang, Meredith Ringel Morris, Paul Resnick, and David Jurgens. Position: Towards Bidirectional Human-AI Alignment. *Advances in Neural Information Processing Systems 38 (NeurIPS 2025), Position Paper Track* (2025). DOI [\[link\]](#)
162. Yi-Hao Peng, Dingzeyu Li, Jeffrey P. Bigham, and Amy Pavel. Morae: Proactively Pausing UI Agents for User Choices. *Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology* (2025). DOI [\[link\]](#)
161. Michelle S. Lam, Fred Hohman, Dominik Moritz, Jeffrey P. Bigham, Kenneth Holstein, and Mary Beth Kery. Policy Maps: Tools for Guiding the Unbounded Space of LLM Behaviors. *Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology* (2025). DOI [\[link\]](#)

160. Hamza El Alaoui, Atieh Taheri, Yi-Hao Peng, and Jeffrey P. Bigham. StepWrite: Adaptive Planning for Speech-Driven Text Generation. *Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology* (2025). DOI [\[link\]](#)
159. Faria Huq, Abdus Samee, David Chuan-en Lin, Alice Xiaodi Tang, and Jeffrey P. Bigham. NoTeeline: Supporting Real-Time, Personalized Notetaking with LLM-Enhanced Micronotes. *Proceedings of the 30th International Conference on Intelligent User Interfaces* (2025). DOI [\[link\]](#)
158. Peya Mowar, Yi-Hao Peng, Jason Wu, Aaron Steinfeld, and Jeffrey P. Bigham. CodeA11y: Making AI Coding Assistants Useful for Accessible Web Development. *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (2025). DOI [\[link\]](#)
157. Peya Mowar, Aaron Steinfeld, and Jeffrey P. Bigham. We Write Our Research Papers in WYSIWYM. Why Do We Tag Our PDFs in WYSIWYG?. *Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility* (2025). DOI [\[link\]](#)
156. Atieh Taheri, Misha Sra, Patrick Carrington, and Jeffrey P. Bigham. Designing Through Lived Experience: Reflections on Control, Embodiment, and Social Bias in Accessibility Research. *Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility* (2025). DOI [\[link\]](#)
155. Peya Mowar, Yi-Hao Peng, Aaron Steinfeld, and Jeffrey P. Bigham. Tab to Autocomplete: The Effects of AI Coding Assistants on Web Accessibility. *Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility* (2024). DOI [\[link\]](#)
154. Jason Wu, Yi-Hao Peng, Xin Yue Li, Amanda Swearngin, Jeffrey P. Bigham, and Jeffrey Nichols. UIClip: A Data-driven Model for Assessing User Interface Design. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2024)* (2024). DOI [\[link\]](#)
153. Yi-Hao Peng, Faria Huq, Yue Jiang, Jason Wu, Amanda Xin Yue Li, Jeffrey Bigham, and Amy Pavel. DreamStruct: Understanding Slides and User Interfaces via Synthetic Data Generation. *Proceedings of the The 18th European Conference on Computer Vision (ECCV 2024)* (2024). DOI [\[link\]](#)
152. Yaxin Hu, Laura Stegner, Yasmine Kotturi, Caroline Zhang, Yi-Hao Peng, Faria Huq, Yuhang Zhao, Jeffrey P. Bigham, and Bilge Mutlu. "This really lets us see the entire world:" Designing a conversational telepresence robot for homebound older adults. *Proceedings of the 2024 ACM Designing Interactive Systems Conference* (2024). DOI [\[link\]](#)
151. Sara Kingsley, Michael Six Silberman, Clara Wang, Robert Lambeth, Jiayin Zhi, Motahhare Eslami, Beibei Li, and Jeffrey P. Bigham. ‘Your Duties Are To Sweep A Floor Remotely’: Low Information Quality in Job Advertisements is a Barrier to Low-Income Job-Seekers’ Successful Use of Digital Platforms. *Proceedings of the 3rd Annual Meeting of the Symposium on Human-Computer Interaction for Work* (2024). DOI [\[link\]](#)
150. Jason Wu, Eldon Schoop, Alan Leung, Titus Barik, Jeffrey P. Bigham, and Jeffrey Nichols. UICoder: Finetuning Large Language Models to Generate User Interface Code through Automated Feedback. *Proceedings of the 2024 Conference of the North American Chapter of the*

Association for Computational Linguistics: Human Language Technologies (Volume 1: Long Papers) (2024). DOI [\[link\]](#)

149. Yasmine Kotturi, Angel Anderson, Glenn Ford, Michael Skirpan, and Jeffrey P. Bigham. Deconstructing the Veneer of Simplicity: Co-Designing Introductory Generative AI Workshops with Local Entrepreneurs. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2024). DOI [\[link\]](#)
148. Stephanie Valencia, Jessica Huynh, Emma Y. Jiang, Yufei Wu, Teresa Wan, Zixuan Zheng, Henny Admoni, Jeffrey P. Bigham, and Amy Pavel. COMPA: Using Conversation Context to Achieve Common Ground in AAC. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2024). DOI [\[link\]](#)
147. 🏆 Fred Hohman, Chaoqun Wang, Jinmook Lee, Jochen Görtler, Dominik Moritz, Jeffrey P. Bigham, Zhile Ren, Cecile Foret, Qi Shan, and Xiaoyi Zhang. Talaria: Interactively Optimizing Machine Learning Models for Efficient Inference. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2024). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
146. Kundan Krishna, Parkhar Gupta, Sanjana Ramprasad, Byron C. Wallace, Jeffrey P. Bigham, and Zachary C. Lipton. USB: A Unified Summarization Benchmark Across Tasks and Domains. *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)* (2023). DOI [\[link\]](#)
145. Jason Wu, Rebecca Krosnick, Eldon Schoop, Amanda Swearngin, Jeffrey P. Bigham, and Jeffrey Nichols. Never-ending Learning of User Interfaces. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2023)* (2023). DOI [\[link\]](#)
144. Colin Lea, Dianna Yee, Jaya Narain, Zifang Huang, Lauren Tooley, Jeffrey P. Bigham, and Leah Findlater. Latent Phrase Matching for Dysarthric Speech. *Proceedings of INTERSPEECH 2023* (2023). DOI [\[link\]](#)
143. Kundan Krishna, Saurabh Garg, Jeffrey P. Bigham, and Zachary C. Lipton. Downstream Datasets Make Surprisingly Good Pretraining Corpora. *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023)* (2023). DOI [\[link\]](#)
142. 🏆 Jason Wu, Siyan Wang, Siman Shen, Yi-Hao Peng, Jeffrey Nichols, and Jeffrey P. Bigham. WebUI: A Dataset for Enhancing Visual UI Understanding with Web Semantics. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2023). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
141. Colin Lea, Zifang Huang, Jaya Narain, Lauren Tooley, Dianna Yee, Tien Dung Tran, Panayiotis Georgiou, Jeffrey P. Bigham, and Leah Findlater. From User Perceptions to Technical Improvement: Enabling People Who Stutter to Better Use Speech Recognition. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2023). DOI [\[link\]](#)
140. Yi-Hao Peng, Jason Wu, Jeffrey P. Bigham, and Amy Pavel. Diffscriber: Describing Visual Design Changes to Support Mixed-Ability Collaborative Presentation Authoring. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2022)* (2022). DOI [\[link\]](#)
139. Prakhar Gupta, Cathy Jiao, Yi-Ting Yeh, Shikib Mehri, Maxine Eskenazi, and Jeffrey P. Bigham. InstructDial: Improving Zero and Few-shot Generalization in Dialogue through

- Instruction Tuning. *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)* (2022). DOI [\[link\]](#)
138. Prakhar Gupta, Harsh Jhamtani, and Jeffrey P. Bigham. Target-Guided Dialogue Response Generation Using Commonsense and Data Augmentation. *Proceedings of NAACL 2022 - Findings* (2022). DOI [\[link\]](#)
 137. Yasmine Kotturi, Herman T. Johnson Jr., Michael Skirpan, Sarah E. Fox, Jeffrey P. Bigham, and Amy Pavel. Tech Help Desk: Support for Local Entrepreneurs Addressing the Long Tail of Computing Challenges. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2022). DOI [\[link\]](#)
 136. 🏆 Kelly Mack, Emma J. McDonnell, Venkatesh Potluri, Maggie Xu, Jailyn Zabala, Jeffrey P. Bigham, Jennifer Mankoff, and Cynthia Bennett. Anticipate and Adjust: Cultivating Access in Human-Centered Methods. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2022). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
 135. Colin Lea, Zifang Huang, Dhruv Jain, Lauren Tooley, Zienab Liaghat, Shrinath Thelapurath, Leah Findlater, and Jeffrey P. Bigham. Nonverbal Sound Detection for Disordered Speech. *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2022)* (2022). DOI [\[link\]](#)
 134. Yi-Hao Peng, Jeffrey P. Bigham, and Amy Pavel. Slidecho: Flexible Non-Visual Exploration of Presentation Videos. *Proceedings of the 23rd International ACM SIGACCESS Conference on Computers & Accessibility* (2021). DOI [\[link\]](#)
 133. 🏆 Stephanie Valencia, Mark Steidl, Michael L. Rivera, Cynthia L. Bennett, Jeffrey P. Bigham, and Henny Admoni. Aided Nonverbal Communication through Physical Expressive Objects. *Proceedings of the 23rd International ACM SIGACCESS Conference on Computers & Accessibility* (2021). DOI [\[link\]](#) * **Best Paper Award** *
 132. Junhan Kong, Dena Sabha, Jeffrey P. Bigham, Amy Pavel, and Anhong Guo. TutorialLens: Authoring Interactive Augmented Reality Tutorials Through Narration and Demonstration. *Proceedings of the Symposium on Spatial User Interaction (SUI 2021)* (2021). DOI [\[link\]](#)
 131. Kundan Krishna, Jeffrey P. Bigham, and Zachary C. Lipton. Does Pretraining for Summarization Require Knowledge Transfer?. *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2021)* (2021). DOI [\[link\]](#)
 130. Jason Wu, Xiaoyi Zhang, Jeffrey Nichols, and Jeffrey P. Bigham. Screen Parsing: Towards Reverse Engineering of UI Models from Screenshots. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2021)* (2021). DOI [\[link\]](#)
 129. Vikramjit Mitra, Zifang Huang, Colin Lea, Lauren Tooley, Sarah Wu, Darren Botten, Ashwini Palekar, Shrinath Thelapurath, Panayiotis Georgiou, Sachin Kajarekar, and Jeffrey Bigham. Analysis and Tuning of a Voice Assistant System for Dysfluent Speech. *Proceedings of INTERSPEECH 2021* (2021). DOI [\[link\]](#)
 128. 🏆 Cynthia L. Bennett, Emily E. Ackerman, Bonnie Fan, Jeffrey P. Bigham, Patrick Carrington, and Sarah E. Fox. Accessibility and The Crowded Sidewalk: Micromobility’s Impact on Public Space. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS 2021)* (2021). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
 127. Kundan Krishna, Sopan Khosla, Jeffrey P. Bigham, and Zachary C. Lipton. Generating SOAP Notes from Doctor-Patient Conversations Using Modular Summarization Techniques.

Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL 2021) (2021). DOI [\[link\]](#)

126. Prakhar Gupta, Yulia Tsvetkov, and Jeffrey P. Bigham. Synthesizing Adversarial Negative Responses for Robust Response Ranking and Evaluation. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics - Findings (ACL-Findings 2021)* (2021). DOI [\[link\]](#)
125. 🏆 Jason Wu, Gabriel Reyes, Samuel C. White, Xiaoyi Zhang, and Jeffrey P. Bigham. When Can Accessibility Help?: An Exploration of Accessibility Feature Recommendation on Mobile Devices. *Proceedings of the 18th International Web for All Conference (W4A 2021)* (2021). DOI [\[link\]](#) * **Best Paper Award** *
124. Prakhar Gupta, Jeffrey P. Bigham, Yulia Tsvetkov, and Amy Pavel. Controlling Dialogue Generation with Semantic Exemplars. *To Appear in NAACL-HLT 2021* (2021). DOI [\[link\]](#)
123. Colin Lea, Vikramjit Mitra, Aparna Joshi, Sachin Kajarekar, and Jeffrey P. Bigham. SEP-28K: A Dataset for Stuttering Event Detection from Podcasts with People Who Stutter. *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2021)* (2021). DOI [\[link\]](#)
122. 🏆 Xiaoyi Zhang, Lilian de Greef, Amanda Swearngin, Samuel White, Kyle Murray, Lisa Yu, Qi Shan, Jeffrey Nichols, Jason Wu, Chris Fleizach, Aaron Everitt, and Jeffrey P. Bigham. Screen Recognition: Creating Accessibility Metadata for Mobile Applications from Pixels. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2021). DOI [\[link\]](#) * **Best Paper Award** *
121. 🏆 Cynthia L. Bennett, Cole Gleason, Morgan Klaus Scheuerman, Jeffrey P. Bigham, Anhong Guo, and Alexandra To. “It’s Complicated”: Negotiating Accessibility and (Mis)Representation in Image. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2021). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
120. Yi-Hao Peng, JiWoong Jang, Jeffrey P. Bigham, and Amy Pavel. Say It All: Feedback for Improving Non-Visual Presentation Accessibility. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2021). DOI [\[link\]](#)
119. 🏆 Stephanie Valencia, Michal Luria, Amy Pavel, Jeffrey P. Bigham, and Henny Admoni. Co-designing Socially Assistive Sidekicks for Motion-based AAC. *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction* (2021). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
118. Amy Pavel, Gabriel Reyes, and Jeffrey P. Bigham. Rescribe: Authoring and Automatically Editing Audio Descriptions. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2020)* (2020). DOI [\[link\]](#)
117. Jaylin Herskovitz, Jason Wu, Samuel White, Amy Pavel, Gabriel Reyes, Anhong Guo, and Jeffrey P. Bigham. Making Mobile Augmented Reality Applications Accessible. *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers & Accessibility* (2020). DOI [\[link\]](#)
116. Cole Gleason, Stephanie Valencia-Valencia, Lynn Kirabo, Jason Wu, Anhong Guo, Elizabeth J. Carter, Jeffrey P. Bigham, Cynthia L. Bennett, and Amy Pavel. Disability and the COVID-19 Pandemic: Using Twitter to Understand Accessibility during Rapid Societal Tran-

- sition. *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers & Accessibility* (2020). DOI [\[link\]](#)
115. Cole Gleason, Amy Pavel, Himalini Gururaj, Kris M. Kitani, and Jeffrey P. Bigham. Making GIFs Accessible. *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers & Accessibility* (2020). DOI [\[link\]](#)
 114. 🏆 Stephanie Valencia, Amy Pavel, Jared Santa Maria, Seunga (Gloria) Yu, Jeffrey P. Bigham, and Henny Admoni. Conversational Agency in Augmentative and Alternative Communication. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2020). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
 113. 🏆 Cole Gleason, Amy Pavel, Emma McCamey, Christina Low, Patrick Carrington, Kris Kitani, and Jeffrey P. Bigham. Twitter A11y: Making Images on Social Media Accessible. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2020). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
 112. 🏆 Jason Wu, Chris Harrison, Jeffrey P. Bigham, and Gierad Laput. Automated Class Discovery and One-Shot Interactions for Acoustic Activity Recognition. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2020). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
 111. Saiph Savage, Chun Chiang, Susumu Saito, Carlos Toxtli, and Jeffrey P. Bigham. Becoming the Super Turker: Increasing Wages via a Strategy from High Earning Workers. *Proceedings of the World Wide Web Conference (WebConf 2020)* (2020). DOI [\[link\]](#)
 110. Claudia Flores-Saviaga, Yuwen Li, Benjamin V. Hanrahan, Jeffrey P. Bigham, and Saiph Savage. The Challenges of Crowd Workers in Rural and Urban America. *Proceedings of the Eighth AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2020)* (2020). DOI [\[link\]](#)
 109. Cole Gleason, Amy Pavel, Xingyu Liu, Patrick Carrington, Lydia B. Chilton, and Jeffrey P. Bigham. Making Memes Accessible. *Proceedings of the 21st International ACM SIGACCESS Conference on Computers & Accessibility* (2019). DOI [\[link\]](#)
 108. Sujeath Paredy, Anhong Guo, and Jeffrey P. Bigham. X-Ray: Screenshot Accessibility via Embedded Metadata. *Proceedings of the 21st International ACM SIGACCESS Conference on Computers & Accessibility* (2019). DOI [\[link\]](#)
 107. Prakhar Gupta, Shikib Mehri, Tiancheng Zhao, Amy Pavel, Maxine Eskenazi, and Jeffrey P. Bigham. Investigating Evaluation of Open-Domain Dialogue Systems With Human Generated Multiple References. *Proceedings of SIGDIAL 2019* (2019). DOI [\[link\]](#)
 106. Anhong Guo, Junhan Kong, Michael Rivera, Frank F. Xu, and Jeffrey P. Bigham. StateLens: A Reverse Engineering Solution for Making Existing Dynamic Touchscreens Accessible. *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2019)* (2019). DOI [\[link\]](#)
 105. Danna Gurari, Qing Li, Chi Lin, Yinan Zhao, Anhong Guo, Abigale Stangl, and Jeffrey P. Bigham. VizWiz-Priv: A Dataset for Recognizing the Presence and Purpose of Private Visual Information in Images Taken by Blind People. *CVPR 2019* (2019). DOI [\[link\]](#)
 104. Cole Gleason, Patrick Carrington, Cameron Cassidy, Meredith Ringel Morris, Kris M. Kitani, and Jeffrey P. Bigham. . *Proceedings of the World Wide Web Conference (WebConf 2019)* (2019). DOI [\[link\]](#)

103. Susumu Saito, Chun-Wei Chiang, Saiph Savage, Teppai Nakano, Tetsunori Kobayashi, and Jeffrey P. Bigham. TurkScanner: Predicting the Hourly Wage of Microtasks. *Proceedings of the World Wide Web Conference (WebConf 2019)* (2019). DOI [\[link\]](#)
102. Mitchell L. Gordon, Leon Gatys, Carlos Guestrin, Jeffrey P. Bigham, Andrew Trister, and Kayur Patel. App Usage Predicts Cognitive Ability in Older Adults. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (2019). DOI [\[link\]](#)
101. Anhong Guo, Saige McVea, Xu Wang, Patrick Clary, Ken Goldman, Yang Li, Yu Zhong, and Jeffrey P. Bigham. Investigating Cursor-based Interactions to Support Non-Visual Exploration in the Real World. *Proceedings of the 18th International ACM SIGACCESS Conference on Computers & Accessibility* (2018). DOI [\[link\]](#)
100. ♀ Patrick Carrington, Gierad Laput, and Jeffrey P. Bigham. Exploring the Data Tracking and Sharing Preferences of Wheelchair Athletes. *Proceedings of the 18th International ACM SIGACCESS Conference on Computers & Accessibility* (2018). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
99. Jeffrey P. Bigham and Patrick Carrington. Learning from the Front: People with Disabilities as Early Adopters of AI. *Submitted to HCIC 2018* (2018).
98. Toni Kaplan, Susumu Saito, Kotaro Hara, and Jeffrey P. Bigham. Striving to Earn More: A Survey of Work Strategies and Tool Use Among Crowd Workers. *Proceedings of the AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2018)* (2018). DOI [\[link\]](#)
97. Danna Gurari, Qing Li, Abigale J. Stangl, Anhong Guo, Chi Lin, Kristen Grauman, Jiebo Luo, and Jeffrey P. Bigham. VizWiz Grand Challenge: Answering Visual Questions from Blind People. *CVPR 2018* (2018). DOI [\[link\]](#)
96. Lucas Roseblatt, Patrick Carrington, Kotaro Hara, and Jeffrey P. Bigham. Vocal Programming for People with Upper-Body Motor Impairments. *Proceedings of the International Conference on Web for All (W4A 2018)* (2018). DOI [\[link\]](#)
95. Maria Rauschenberger, Luz Rello, Ricardo Baeza-Yates, and Jeffrey P. Bigham. Towards Language Independent Detection of Dyslexia with a Web-based Game. *Proceedings of the International Conference on Web for All (W4A 2018)* (2018). DOI [\[link\]](#)
94. ♀ Kotaro Hara, Abi Adams, Kristy Milland, Saiph Savage, Chris Callison-Burch, and Jeffrey P. Bigham. A Data-Driven Analysis of Workers' Earnings on Amazon Mechanical Turk. *SIGCHI Conference on Human Factors in Computing Systems* (2018). DOI [\[link\]](#) * **Best Paper Honorable Mention** *
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6. Jessica Huynh, Ting-Rui Chiang, Jeffrey P. Bigham, and Maxine Eskenazi. DialCrowd 2.0: A Quality-Focused Dialog System Crowdsourcing Toolkit. (2022).
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4. Kotaro Hara, Abigail Adams, Kristy Milland, Saiph Savage, Benjamin V. Hanrahan, Jeffrey P. Bigham, and Chris Callison-Burch. Worker Demographics and Earnings on Amazon Mechanical Turk: An Exploratory Analysis. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems - Extended Abstracts* (2019).
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Patents and Invention Disclosures

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15. J. P. Bigham, J. Herskovitz, S. White, J. Wu. "Accessible Mixed Reality Applications." US 18/239,018, 2023 (pending). Assignee: Apple Inc.
14. Z. Lipton, J. P. Bigham, K. Krishna. "Methods of Automatically Generating Formatted Annotations of Doctor-Patient Conversations." US 17/736,624, 2022 (pending).
13. J. P. Bigham, J. Wu, X. Zhang. "Pixel-Based Optimization for a User Interface." US 2021/0349587 A1, 2021 (pending). Assignee: Apple Inc.
12. J. P. Bigham, M. Li, S. C. White, X. Zhang, Q. Shan, C. E. Guestrin. "On-the-Fly Calibration for Improved On-Device Eye Tracking." US 11,106,280 B1, 2021 (granted). Assignee: Apple Inc.

11. A. M. Leventhal, J. P. Bigham. “Techniques for Programmatic Magnification of Visible Content Elements of Markup Language Documents.” US 10,740,540 B2, 2020 (granted).
10. G. Laput, C. Harrison, J. P. Bigham, W. S. Lasecki, B. R. Xiao, J. Wiese. “System and Method for Adaptive, Rapidly Deployable, Human-Intelligent Sensor Feeds.” US 10,657,385 B2, 2020 (granted). Assignee: Carnegie Mellon University.
9. A. M. Leventhal, J. P. Bigham. “Techniques for Programmatic Magnification of Visible Content Elements of Markup Language Documents.” US 10,366,147 B2, 2019 (granted). Assignee: Freedom Scientific (AI Squared).
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7. A. M. Leventhal, J. P. Bigham. “Executing Secondary Actions with Respect to Onscreen Objects.” US 9,336,753 B2, 2016 (granted).
6. A. M. Leventhal, J. P. Bigham. “Selecting Techniques for Enhancing Visual Accessibility Based on Health of Display.” US 9,196,227 B2, 2015 (granted). Assignee: AI Squared.
5. A. M. Leventhal, J. P. Bigham. “Applying Enhancements to Visual Content.” US 14/017,828, 2014 (pending).
4. J. P. Bigham, W. S. Lasecki, K. I. Murray, S. C. White. “Closed-Loop Crowd Control of Existing Interface.” US 2014/0019835 A1, 2014 (pending).
3. J. P. Bigham, W. Lasecki. “Systems and Methods for Captioning by Non-Experts.” US 2013/0317818 A1, 2013 (pending). Assignee: University of Rochester.
2. M. W. Halterman, J. P. Bigham, H. Kautz, J. W. Hill. “Crowdsourcing Medical Expertise.” US 2012/0245952 A1, 2012 (pending). Assignee: University of Rochester.
1. J. P. Bigham, C. Drews, T. A. Lau, I. A. R. Li, J. W. Nichols. “System, Method, and Apparatus for Generating a Script to Perform a Task at a Target Web Interface Instance.” US 2011/0196853 A1, 2011 (pending). Assignee: IBM.

Invited Talks and Panels

87. Revisiting 7 Grand Challenges in Accessibility in the Age of AI, *Computer Science Department, University of Notre Dame*. March 12, 2026.
86. Revisiting 8 Grand Challenges in Accessibility in the Age of AI, *CHCI Distinguished Speaker Series, Virginia Tech Center for Human-Computer Interaction*. January 27, 2026.
85. Revisiting 8 Grand Challenges in Accessibility in the Age of AI, *Stanford HCI Seminar (Stanford Seminar on People, Computers and Design / CS 547)*. January 23, 2026.
84. Revisiting 7 Grand Challenges in Accessibility, *MIT Human-Computer Interaction (HCI) Seminar*. December 9, 2025.
83. System Class Accessibility, *VizWiz Grand Challenge Workshop, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. June 2025.
82. Revisiting 7 Grand Challenges in Accessibility in the Age of AI, *Keynote, Miraikan National Science Museum, Tokyo, Japan*. May 2, 2025.
81. How Easy Access to Statistical Likelihoods of Everything Will Change Interaction with Computers, *AI@AU Seminar Series, Auburn University*. April 22, 2025.

80. Responsible AI, *Auburn Artificial Intelligence Initiative AI Summit, Auburn University*. April 22, 2025.
79. How Easy Access to Statistical Likelihoods of Everything Will Change Interaction with Computers, *Information Science Colloquium, Cornell University*, Ithaca, NY. November 6, 2024.
78. How Easy Access to Statistical Likelihoods of Everything Will Change Interaction with Computers, *Computer Science Colloquium, Princeton University*, Princeton, NJ. November 4, 2024.
77. How Easy Access to Statistical Likelihoods of Everything Will Change Interaction with Computers, *Onboarding Keynote, AWARE-AI NRT Program, Rochester Institute of Technology*, Rochester, NY. August 20–22, 2024.
76. GUIs, Accessibility, and the Ultimate Interface for Everything, *CHI 2024 Workshop on User Interface Understanding*. May 2024.
75. How HCI Might Engage with Easy Access to Unintuitive Statistical Likelihoods of Things, *Spotlight talk, Interactive GenAI Workshop, ACM UIST*. October 6, 2023.
74. How HCI Might Engage with the Easy Access to Statistical Likelihoods of Things, *Human+AI Symposium, Chicago Human+AI Lab, University of Chicago*, Chicago, IL. September 29, 2023.
73. Humans and Loops, *Stanford Human-Centered AI Institute*. November 15, 2022.
72. Humans and Loops, *Keynote, AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2022)*. November 8, 2022.
71. An HCI Approach to Dialog Systems Research, *Keynote, Workshop on Bridging Human-Computer Interaction and Natural Language Processing (HCI+NLP), NAACL 2022*. July 2022.
70. Accessibility and the AI Autumn, *Microsoft Research*, Redmond, WA. March 13, 2020.
69. Accessibility and the AI Autumn, *Stanford HCI Seminar*, Stanford, CA. March 3, 2020.
68. Deep Integration of Human and Machine Intelligence for Accessibility, *CCC Symposium Panel on AI and Amplifying Human Abilities*. October 2017.
67. A Crowd-Powered Approach to Truly Intelligent User Interfaces, *Information School, University of Texas - Austin*. February 2017.
66. A Crowd-Powered Approach to Truly Intelligent User Interfaces, *Computer Science Colloquium, Texas State University*. February 2017.
65. Augmenting Vision, *Microsoft Research*, Redmond, WA. 2017.
64. A Crowd-Powered Approach to Truly Intelligent User Interfaces, *Computer Science Department, University of Iowa*. November 2016.
63. A Crowd-Powered Approach to Truly Intelligent User Interfaces, *ACT*. November 2016.
62. Carnegie Mellon University Accessibility Capacity Building Institute, *Carnegie Mellon University*. October 2016.
61. A Crowd-Powered Approach to Truly Intelligent User Interfaces, *Computer Science Department, Oregon State University*. June 2016.

60. Microsoft Research Faculty Summit, *Microsoft Research*. July 2016.
59. Automating Crowd-Powered Systems, *Computer Science Department, Brown University*. October 2015.
58. Automating Crowd-Powered Systems, *HCI Colloquium, University of Illinois*. September 2015.
57. Automating Crowd-Powered Systems, *ICML Crowdsourcing Workshop*, Lille, France. July 2015.
56. Crowd Consortium Panel, College Park, Maryland. May 2015.
55. Automating Crowd-Powered Systems, *University of Zurich*, Zurich, Switzerland. May 2015.
54. Automating Crowd-Powered Systems, *Microsoft Research*, Redmond, WA. March 2015.
53. Crowds and Learning: Three On-Going Projects, *Crowdsourcing, Online Education, and Massive Open Online Courses Workshop at HCOMP 2014*. 2014.
52. 12 Lessons Learned from Deploying Crowd-Powered Systems, *Microsoft Research Faculty Summit*, Redmond, WA. July 2014.
51. Quickly Answering Visual Questions, *CVPR Workshop on Computer Vision and Human Computation*, Columbus, OH. June 2014.
50. Crowd Agents: A Top-Down Approach to Intelligent Interactive Systems, *Distinguished Colloquium Series, Northwestern University*, Evanston, IL. May 2014.
49. Crowd Agents: A Top-Down Approach to Intelligent Interactive Systems, *HCI Colloquium, University of Wisconsin*, Madison, WI. May 2014.
48. Crowd Agents: A Top-Down Approach to Intelligent Interactive Systems, *CUNY*, New York City, NY. March 2014.
47. Crowd Agents: A Top-Down Approach to Intelligent Interactive Systems, *Google Tech Talk*, Mountain View, CA. January 2014.
46. Crowd Agents: A Top-Down Approach to Intelligent Interactive Systems, *Machine Learning Lunch, Carnegie Mellon University*. November 2013.
45. Interactive Crowd Support, *Workshop on Environmental Sensing Technologies for Visual Impairment (ESTVI 13)*, *Smith Kettlewell Eye Institute*, San Francisco, CA. August 2013.
44. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *International Conference on Machine Learning (ICML 2013) - Machine Learning Meets Crowdsourcing*, Atlanta, GA. June 2013.
43. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *Xerox Research Center*, Webster, NY. June 2013.
42. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *Cognitive Science Dinner, University of Rochester*, Rochester, NY. April 2013.
41. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *University of Michigan Computer Science and Engineering*, Ann Arbor, Michigan. February 2013.
40. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *HCI Colloquium, Carnegie Mellon University*, Pittsburgh, Pennsylvania. February 2013.

39. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *HCII Crowdsourcing Lunch Seminar, Carnegie Mellon University*, Pittsburgh, PA. December 2012.
38. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *School of Information Colloquium, University of Michigan*, Ann Arbor, MI. December 2012.
37. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *GVU Brown Bag Lunch, Georgia Institute of Technology*, Atlanta, GA. November 2012.
36. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *HCI Seminar, MIT*, Cambridge, MA. November 2012.
35. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *Math and Computer Science Colloquium, Houghton College*, Houghton, NY. October 2012.
34. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *Department of Information Science Colloquium, Cornell University*, Ithaca, NY. October 2012.
33. Crowd Agents: Interactive Crowd-Powered Systems in the Real World, *Laboratory for Laser Energetics Colloquium, University of Rochester*, Rochester, NY. September 2012.
32. Crowd Agents, *Human Computation (HCOMP) Workshop, Keynote*, Toronto, ON. July 2012.
31. Real-Time Crowd Support for People with Disabilities, *Computer Science Colloquium, Dartmouth University*, Hanover, NH. November 2011.
30. Real-Time Crowd Support for People with Disabilities, *Boston University*, Boston, MA. August 2011.
29. Heads in the Cloud - New Approaches for Access Technology, *Smith-Kettlewell Eye Institute*, San Francisco, CA. June 2011.
28. Heads in the Cloud - How Strangers, Virtual Farmers, and Your Friends from High Schools May Solve Artificial Intelligence, *Provost's Phelps Colloquium, University of Rochester*, Rochester, NY. March 2011.
27. Heads in the Cloud - New Approaches for Access Technology, *Department of Computer Science and Engineering, University of Washington*, Seattle, WA. January 2011.
26. Heads in the Cloud - New Approaches for Access Technology, *University of San Diego*, San Diego, CA. November 2010.
25. Electronic Health Records: Issues for Non-Visual Access, *Accessible Electronic Health Records Workshop at ASSETS 2010*. October 2010.
24. Legal and Regulatory Barriers to Accessibility Technology in the Cloud, *Coleman Conference Workshop, Silicon Flatirons*. October 2010.
23. Heads in the Cloud - How Strangers, Virtual Farmers, and Your Friends from High Schools are Bringing Artificial Intelligence into the Real World, *Johns Hopkins University*, Baltimore, MD. September 2010.
22. Accessibility on Demand, *IBM Almaden*, San Jose, CA. June 2010.
21. Accessibility on Demand, *Yahoo! Inc.*, Sunnyvale, CA. June 2010.
20. Improving Access for Blind Web Users, *Xerox Research*, Webster, NY. January 2010.

19. Improving Access for Blind Web Users, *MIT CSAIL*, Cambridge, Massachusetts. April 2009.
18. Improving Access for Blind Web Users, *Northeastern University*, Boston, Massachusetts. March 2009.
17. Improving Access for Blind Web Users, *University of Wisconsin*, Madison, Wisconsin. March 2009.
16. Improving Access for Blind Web Users, *Washington University*, St. Louis, Missouri. March 2009.
15. Improving Access for Blind Web Users, *University of Oregon*, Eugene, Oregon. February 2009.
14. Improving Access for Blind Web Users, *Oregon State University*, Corvallis, Oregon. February 2009.
13. Improving Access for Blind Web Users, *Microsoft Research*, Redmond, Washington. February 2009.
12. Improving Access for Blind Web Users, *University of Rochester*, Rochester, New York. February 2009.
11. Understanding the Global Marketplace - Perspectives from WebAnywhere, *National Center for Technology Innovation (NCTI) Technology Innovators Conference*, Washington, D.C.. November 2008.
10. Overview of NFB Youth Slam Computer Science Track, *AccessComputing Leadership Institute, Panel*, Seattle, Washington. November 2008.
9. Research Trends in Supporting Accessibility, *Scripting Enabled*, *Adobe, Inc.*, Seattle, WA. November 2008.
8. Accessibility, Usability, and Availability - Building an Inclusive Web Experience, *Amazon Accessibility Day*, *Amazon Inc.*, Seattle, Washington. October 2008.
7. Accessibility Panel, *LMS Seminar, Electronics and Computer Science Department*, *Southampton University*, United Kingdom. September 2008.
6. Toward Social Accessibility, *National Association of Disability Practitioners Conference*, High Wycombe, United Kingdom. September 2008.
5. A Web 2.0 Approach to Web Accessibility, *International Conference on Low Vision (VISION 2008)*, Montreal, Canada. July 2008.
4. WebAnywhere: A Screen Reader On-the-Go, *Microsoft Imagine Cup Finals*, Paris, France. July 2008.
3. A Web 2.0 Approach to Web Accessibility, *Stony Brook University*, Stony Brook, New York. November 2007.
2. WebAnywhere: A Screen Reader On-the-Go, *Tech Talk*, *Google Inc.*, Kirkland, WA. August 2007.
1. WebInSight: Making Web Images Accessible, *Tech Talk*, *Google Inc.*, Kirkland, WA. May 2007.

Selected Press

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37. “Apple Execs at Sight Tech Global Event.” *9to5Mac*. November 5, 2021. <https://9to5mac.com/2021/11/05/apple-execs-sight-tech-global-event/>
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Grants and Other Support

53. **From “AI Made That” to “I Made That”: Accessible Agency-Enhancing User Interfaces for Responsible AI**, Apple Inc. Principal Investigator, 2025, \$337,500..
52. **Generative AI to Support Accessibility**, Apple Inc. Principal Investigator, 2024, \$321,500.
51. **CERES: Creating an EdTech Research Ecosystem – renewal**, Jacobs Foundation. Subcontract PI, June 1, 2024, \$100,000. With Amy Ogan, Kenneth Holstein, Patrick Carrington.
50. **Large Language Models as a Universal Accessibility Layer**, Apple Inc. Principal Investigator, 2023, \$307,500.
49. **Enabling More Accessible Collaboration**, Apple Inc. Principal Investigator, 2022, \$293,475.
48. **CERES: Creating an EdTech Research Ecosystem**, Jacobs Foundation. Subcontract PI, June 1, 2021, \$400,000. With Amy Ogan, Kenneth Holstein, Patrick Carrington.
47. **A More Accessible World with Augmented Reality and Haptics**, Apple Inc. Principal Investigator, 2021, \$287,333.

46. **Quantifying and Mitigating Disparities in Language Technologies**, National Science Foundation (CNS-2040926). Co-PI, January 2021, \$600,000. With Graham Neubig (PI), Geoff Kaufman.
45. **A More Accessible World with Augmented Reality**, Apple Inc. Principal Investigator, 2020, \$278,499.
44. **Detecting Suspicious Online Interactions - renewal**, DARPA Active Social Engineering Defense (ASED) program. Principal Investigator, 2020, \$600,000.
43. **Chorus: A Crowd-Powered Conversational Assistant that Automates Itself Over Time**, Yahoo! InMind. Project Lead, 2019, \$100,000.
42. **CCRI: ENS: Collaborative Research: Developing the Dialog Ecosystem to Support and Enhance Research in Spoken Dialog Systems**, National Science Foundation (CNS-1924855). Co-PI, September 2019, \$1,700,000. With Maxine Eskenazi.
41. **FW-HTF-RL: Collaborative Research: Up-skilling and Re-skilling Marginalized Rural and Urban Digital Workers: AI-worker collaboration to access creative work**, National Science Foundation (1928631). Principal Investigator, July 2019, \$2,500,000. With Chris Callison-Burch, Benjamin Hanrahan, Aniket Kittur, Beibei Li, Amy Ogan, Amy Pavel, Saiph Savage, Julia Ticona.
40. **CHS: Small: Deep Integration of Crowds and AI for Robust, Scalable, and Privacy-Preserving Conversational Assistance**, National Science Foundation (IIS-1816012). Principal Investigator, August 2018, \$500,000.
39. **Detecting Suspicious Online Interactions**, DARPA Active Social Engineering Defense (ASED) program. Co-PI, \$510,230. With Artur Dubrawski.
38. **Chorus: A Crowd-Powered Conversational Assistant that Automates Itself Over Time**, Yahoo! InMind. Project Lead, 2018, \$100,000.
37. **Expert Crowdsourcing for Semantic Annotation of Atmospheric Phenomena**, CMU Portugal. Co-Investigator, December 2017, \$96,000. With Hugo Alexandre Paredes Guedes da Silva.
36. **HCII Career Development Fellowship**, Human-Computer Interaction Institute. None, \$75,000.
35. **Chorus: A Crowd-Powered Conversational Assistant that Automates Itself Over Time**, Yahoo! InMind. Project Lead, 2017, \$100,000.
34. **Zensors**, Bosch. None, November 2017, \$45,000. With Chris Harrison.
33. **Early Dyslexia Detection and Support at Scale to Help Students Succeed in School**, National Science Foundation (IIS-1618784). Principal Investigator, June 2016, \$500,000. With Maria Luz Rello Sanchez (co-PI).
32. **VizWiz**, Microsoft Research. Principal Investigator, February 2016, \$50,000.
31. **The VizWiz Data Set: Driving Research in Visual Question Answering with a Large Data Set of Visual Questions and Answers from Blind People**, Google Research Award. Principal Investigator, February 2016, \$100,000.
30. **Crowd and Cloud Game Design with Amazon and Twitch**, Amazon. Co-PI, January 2016, \$400,000. With Jessica Hammer (PI), Drew Davidson (ETC), Chris Klug (ETC).

29. **Chorus: Automating a Crowd-Powered Approach to Conversational Assistance with the Yahoo! Software Harness**, Yahoo! InMind. Project Lead, 2015, \$100,000.
28. **Zensors**, Bosch. None, November 2015, \$50,000. With Chris Harrison, Aniket Kittur.
27. **SBIR Phase I: Exploring the Feasibility of Deployable Crowd-Powered Real-Time Captioning Supplemented with Automatic Speech Recognition**, National Science Foundation. Senior Personnel, November 2014, \$150,000. With Legion Labs LLC (PI).
26. **RERC on Information and Communication Technology: From Cloud to Smartphone: Empowering and Accessible Information and Communication Technology**, National Science Foundation. Co-Director, September 2014, \$5,000,000. With Bambang Parnanto (co-director), Jennifer Mankoff.
25. **Human-Assisted Real-Time Speech Recognition**, Google Research Award. Principal Investigator, October 2014, \$100,000.
24. **Bootstrapping Academic Bootcamp**, CMU ProSEED/Simon Initiative Seed Grant. None, July 2014, \$19,000. With Emma Brunskill, Niki Kittur.
23. **Chorus: Automating a Crowd-Powered Approach to Conversational Assistance with the Yahoo! Software Harness**, Yahoo! InMind. Project Lead, 2014, \$100,000.
22. **Alfred P. Sloan Foundation Fellowship**, Sloan Foundation. Principal Investigator, February 2014, \$50,000.
21. **DRRP on Inclusive Cloud And Web Computing**, National Institute for Disability, Independent Living, and Rehabilitation Research (NDILRR). Scientific Director, September 2013, \$3,750,000. With Aaron Steinfeld (Director), John Zimmerman, Anthony Tomasic, Charlie Garrod (CMU); Yang Wang, Yun Huang (Syracuse); Amy Hurst (UMBC).
20. **RERC on Physical Access and Transportation**, National Institute for Disability, Independent Living, and Rehabilitation Research (NDILRR). Co-Investigator, September 2013, \$4,600,000. With Aaron Steinfeld (Director, CMU), Edward Steinfeld (Buffalo), John Zimmerman, Anthony Tomasic, M. Bernadine Dias, Yun Huang, Christopher Mertz, Stephen Smith, Charlie Garrod, Victor Paquet, James A. Lenker, Jordana Maisel, Heamchand Subryan, Jonathan White.
19. **Crowdsourcing Speech-to-Text in Less Than 5 Seconds**, Google Research Award. Principal Investigator, August 2013, \$78,315.
18. **National Federation of the Blind STEM-X - Computer Science Track**, AccessComputing. Principal Investigator, July 2013, \$1,570.
17. **A Ubiquitously Accessible Crowd-Powered World / QuiltView**, Google Glass Research Award. None, August 2013, \$28,000 + 10 Google Glass devices (\$1,500 per). With Mahadev Satyanarayanan.
16. **I-Corps: Real-Time Crowd Captioning**, National Science Foundation, I-Corps Program (1338678). Principal Investigator, May 2013, \$50,000.
15. **Real-Time Captioning by Groups of Non-Experts for Deaf and Hard of Hearing Students**, National Science Foundation (IIS-1218209). Principal Investigator, August 2012, \$500,000. With Daniel Gildea (University of Rochester), Raja Kushalnagar (Rochester Institute of Technology).

14. **Workshop: Doctoral Consortium for ASSETS 2012**, National Science Foundation (IIS-1240198). Principal Investigator, July 2012, \$25,074.
13. **Human Computer Interaction (HCI) Principles for Mental Health Intervention with Emerging Adults and their Parents: An Interdisciplinary Tutorial**, Family Research Roundtable, University of Rochester, Committee on Interdisciplinary Studies. None, June 2012, \$2,500. With Anthony R. Pisani, Ph.D..
12. **CAREER: Closed-Loop Crowd Support for People with Disabilities**, National Science Foundation (IIS-1149709). Principal Investigator, February 2012, \$500,003 (plus REU/RET supplements: \$12,800 March 2012; \$16,000 May 2013; \$16,000 May 2014; \$16,000 June 2015; \$10,000 May 2016; \$16,000 June 2016).
11. **MobileAccessibility: Bridge to the World for Blind, Low-Vision, and Deaf-Blind People**, National Science Foundation (IIS-1116051). Co-Investigator, September 2011, \$516,000. With Richard E. Ladner (PI, University of Washington).
10. **Combining Artificial and Human Intelligence for More Effective Access Technology**, Google Research Award. Principal Investigator, July 2011, \$57,000.
9. **National Federation of the Blind Youth Slam - Computer Science Track**, Access-Computing Mini-Grant. Principal Investigator, May 2011, \$4,800.
8. **Quip! Enabling Location-Aware Connections Between Alumni and Current Students**, University of Rochester Provost's Office. None, May 2011, \$20,000 in equipment and student support.
7. **REU Support for Student with a Disability**, AccessComputing Summer Research Internship. Principal Investigator, May 2011, \$6,000.
6. **WebAnywhere: An Extensible Cloud Platform**, National Center on Disability and Rehabilitation Research (Subcontract from TRACE R&D CENTER, University of Wisconsin). None, September 2010, \$25,000.
5. **RCT of Primary Care-based Patient Navigation-Activation - Research on HIV/AIDS-Related Cancers Among Racial/Ethnic Minorities**, National Cancer Institute. Co-Investigator, October 2010, \$200,000. With Kevin Fiscella (PI, University of Rochester, Family Medicine).
4. **EAGER: VizWiz: Enabling Blind People to Answer Visual Questions On-the-Go with Remote Automatic and Human-Powered Services**, National Science Foundation (IIS-1049080). Principal Investigator, September 2010, \$49,999.
3. **REU Support for Student with a Disability**, AccessComputing Summer Research Internship. Principal Investigator, May 2010, \$6,000.
2. **Enabling More Effective Use of the Web Anywhere with WebAnywhere and Trail-Blazer**, National Center on Technology Innovation. Principal Investigator, October 2009, \$15,000.
1. **WebAnywhere**, Andrew W. Mellon Foundation Award for Technology Collaboration (MATC). Co-Investigator, December 2008, \$50,000. With Richard E. Ladner (PI, University of Washington).

Industry Experience

AI/ML, Apple, Inc

2018-

Built an applied research group in Human-Centered ML, focused on machine learning applied to accessibility, user interface modeling and tooling, developer tools, health sensing, responsible AI / safety, and information visualization.

Expert Witness

2013-

Areas of expertise include accessibility and assistive technology (screen readers, speech technology, captioning or subtitle technology, automatic speech recognition to provide access, Web accessibility), human computation and crowdsourcing (technology that works via human and machine cooperation, Amazon Mechanical Turk), and general human-computer interaction and computer science.

Usability and Accessibility Consulting

2008-

Pittsburgh, PA

Work with large and small companies to develop innovative technological solutions primarily in the web and mobile domains to help improve or create accessible and usable customer experiences. Clients have included Adaptech Courseware, AiSquared, Inc., Don Johnston, Inc., Microsoft, and Second Avenue Learning.

Co-Founder and CEO, Legion Labs, Inc.

2013-2018

Developing interactive systems powered by on-demand crowds and machine intelligence.

Consultant, Google[x]

2014

Mountain View, CA

Helped to build human-computation workflows to power an intelligent tool that was under development.

Founding Chief Architect / Researcher, aiSquared

2012-2013

Manchester Center, VT

Co-designed and developed prototype of what became sitecues, a web page add-on that adapts existing web pages to make them easier to see and hear. Project received funding from investment group.

Visiting Researcher, Microsoft Research

2012

Seattle, WA

Explored social incentives in social question answering and commenting. Worked toward developing a utility model to explain why people choose to respond to questions and status updates on social media.

Don Johnston, Inc.

2010-2011

Volo, IL

Adapted the WebAnywhere open source project for use in the reading tool Bookstream.

Intern, USER Research Group, IBM Almaden Research Center

2008

San Jose, CA

Created TrailBlazer, a non-visual, programming-by-demonstration system that makes web tasks easier to complete with a screen reader.

Summer Fellow, Benetech 2008
Palo Alto, CA
 Worked with a team to improve the WebAnywhere web-based screen-reading web application.

Intern, Google Research 2005
Mountain View, CA
 Tackled substantial quantitative and qualitative problems with the goal of automatically generating a million correct relational facts from unstructured web text starting with ten seed facts.

Research Intern, AT&T Shannon Labs 2003
Florham Park, NJ
 Tasked with improving the automatic classification and routing of email based on subject.

Intern, Microsoft 2002
Redmond, WA
 Developed an application designed to automatically generate test cases for the Interop area of the .NET Common Language Runtime.

Teaching

HCII Computer Science Research Mini Fall 2023
Carnegie Mellon University, Human-Computer Interaction Institute
 Taught the half-semester course on technical HCI research.

Human-AI Interaction Fall 2018
Carnegie Mellon University
 Created a new course designed to explore the tight connection between humans and AI, and how if we want to create useful impactful AI systems we need to deeply consider the people.
<http://www.humanaiclass.org>

Accessibility: A Guide to Building Future User Interfaces Fall 2017
Carnegie Mellon University
 Created a new course to teach accessibility through the lens of people with disabilities being early adopters of next-generation user interfaces.
<http://www.accessibilitycourse.com>

Accessibility Project Course Spring 2018
Carnegie Mellon University
 In this project-oriented course, students were paired with a client with a disability and a PhD student mentor. The semester was spent working to deliver a useful and usable solution for a problem that their client had identified.
<http://www.accessibilitycourse.com/project/>

Crowd Programming Spring 2014, Spring 2015, Spring 2016
Carnegie Mellon University, Human-Computer Interaction Institute
 Created a new course on incorporating the crowd (broadly defined) into computer programs.
<http://www.programthecrowd.com>

Social Web Fall 2014, Fall 2015
Carnegie Mellon University, Human-Computer Interaction Institute

<http://www.socialweb.io>

Web Accessibility (mini)

Spring 2015

Carnegie Mellon University, Human-Computer Interaction Institute

Created new course (with Jen Mankoff) to introduce accessibility for people with disabilities as applied to the Web.

<http://www.accessibilitycourse.com>

Introduction to Human-Computer Interaction (CSC 212/412) Fall 2010, Fall 2011, Fall 2012

University of Rochester, Computer Science

Developed a new course introducing computer science students to human-computer interaction.

Web Programming (CSC 210)

Spring 2010, Spring 2011, Spring 2012, Spring 2013

University of Rochester, Computer Science

Developed and taught a popular undergraduate course on the technology and science of web programming.

National Federation of the Blind (NFB) Youth Slam August 2007, August 2009, August 2011, August 2013

Led the development of the curriculum for the computer science track at the Youth Slam and used it as part of an intensive class for 15 blind high school students to introduce them to programming in one week.

<http://webinsight.cs.washington.edu/nfbslam/>

Tutor

Spring 2005, Fall 2005, Fall 2007

University of Washington

Operating Systems (CSE 451), Artificial Intelligence (CSE 473). Held weekly tutoring sessions with groups of 1-3 students.

Teaching Assistant Fall 2003, Winter 2004, Spring 2004, Fall 2004, Winter 2005, Spring 2005, Winter 2006

University of Washington

Computer Vision (CSE 455) with Steve Seitz, Cyber-Terrorism (CSEP 590TU) with Ed Lazowska, Machine Organization and Assembly Language Programming (CSE 378) with Jean-Loupe Baer, Artificial Intelligence (CSE 415) with Steve Tanimoto, Artificial Intelligence (CSE 473) with Henry Kautz. Responsibilities included leading quiz sections, creating and grading assignments, and supporting students.

Professional Service

Advisory Board and Steering Committee

- HCOMP Conference Steering Committee (2014-2025)
- ACM ASSETS Steering Committee (2018-2023)
- IEEE Human Computation Journal (2014-2020)

Organizing Committee

- **ASSETS:**
 - Sponsorship Chair (2025)
 - General Chair (2019)

- Program Chair (2015)
- Registration Chair and Treasurer (2014)
- Doctoral Consortium Chair (2012)
- Doctoral Consortium Panelist (2011)
- Student Research Competition Chair (2010)
- Web Chair (2009)
- **CSCW:**
 - Doctoral Consortium Panelist (2024)
 - Doctoral Consortium Panelist (2016)
- **CHI:**
 - Systems Chair (2027)
 - Subcommittee Chair for Accessibility, Health, and Aging (2017, 2018)
 - Doctoral Consortium Co-Chair (2017)
 - Digital Accessibility Chair (2015)
- **Collective Intelligence:**
 - Proceedings Co-Chair (2014)
- **UIST:**
 - Doctoral Consortium Panelist (2025)
- **HCOMP:**
 - Doctoral Consortium Panelist (2015)
 - General Co-Chair (2014)
 - Works-in-Progress and Demonstrations Chair (2013)
- **W4A:**
 - General Co-Chair (2014)
 - Program Co-Chair (2013)
 - Microsoft Accessibility Challenge Chair (2012)
 - Google Student Award Chair (2011)
- **WWW:**
 - Co-Chair of Crowdsourcing Systems and Social Media Track (2015)
- **VizWiz Grand Challenge Workshop (CVPR):**
 - Organizer (2018, 2020–2026)

Program Committee (Senior Program Committee, Associate Chair)

- **AAAI:** AAAI Conference on Artificial Intelligence (2011, 2012)
- **ASSETS:** ACM Conference on Accessibility and Computing (2009-2026)
- **CHI:** ACM Conference on Human Factors in Computing Systems (2011-2014, 2016-2018, 2021, 2023-2024, 2026)
- **CHI:** ACM CHI Work-In-Progress Track (2009)
- **CHI:** ACM CHI Student Research Competition (2013)
- **CSI-SE:** International Workshop on Crowdsourcing in Software Engineering (2014-2015)
- **CSCW:** ACM Conference on Computer-Supported Cooperative Work (2014-2015)
- **EMNLP:** Conference on Empirical Methods in Natural Language Processing (2014) – Senior Area Chair for Human-Centered NLP (2023, 2024)
- **FAccT:** ACM Conference on Fairness, Accountability, and Transparency (2019, 2025)
- **GI:** Graphics Interface (2016)
- **HCOMP:** Human Computation Conference (2012-2014, 2016)
- **ICWSM:** International Conference on Weblogs and Social Media (2013-2014)
- **IJCAI:** International Joint Conference on Artificial Intelligence (2011)

- NAACL: North American Chapter of the Association for Computational Linguistics (2022) – Senior Area Chair for Human-Centered NLP (inaugural chair of the track)
- UIST: ACM Symposium on User Interface Software and Technology (2011-2012, 2014-2015, 2021-2024, 2026)
- W4A: International Cross-Disciplinary Conference on Web Accessibility (2009-2014)
- WWW: International World Wide Web Conference (2013-2014)

Journal Reviewing

- ACM Transactions on Accessible Computing (TACCESS) – Editorial Board (2013-2018)
- ACM Transactions on Computer-Human Interaction (TOCHI) (2007-2014)
- ACM Transactions on Accessible Computing (TACCESS) – Associate Editor (2008-2013)
- IBM Systems Journal (2008)

Service at Carnegie Mellon University

- Carnegie Mellon University HCIC Representative (2018-Present)
- SCS AI Major Curriculum Review Committee (CRC) (2018-Present)
- Accessibility Lunch Seminar (2016-Present)
- HCII PhD Program Director (2016-2022)
- School of Computer Science Council (2018-2021)
- Crowdsourcing Lunch Seminar (co-organizer) (2013-2020)
- Social Media Faculty Lead (2013-2020)
- CMU Climate Task Force (2019)
- Ph.D. Admissions Committee Chair (2016, 2018)
- Ph.D. Admissions Committee (2014, 2015)
- HCII Relationships Committee (2013-2014)

Students and Postdoctoral Fellows

Current Postdoctoral Fellows

- Atieh Taheri (2024 – present)
- Saelyne Yang (2026 – present)

Postdoctoral Fellows Supervised

- Yasmine Kotturi (2022 – 2025). First position: Assistant Professor at University of Maryland Baltimore County
- Cynthia Bennett (2019 – 2022). First position: Senior Research Scientist at Google PAIR
- Yang Zhang (2020 – 2021). First position: Assistant Professor of Computer Science at University of California Los Angeles
- Amy Pavel (2018 – 2021). First position: Assistant Professor of Computer Science at University of California Berkeley
- Patrick Carrington (2017 – 2019). First position: Assistant Professor in the Human-Computer Interaction Institute at Carnegie Mellon University
- Kotaro Hara (2016 – 2017). First position: Assistant Professor in the School of Information Systems at Singapore Management University
- Luz Rello (2014 – 2016). First position: System Scientist at Carnegie Mellon University

Current Ph.D. Students

- Hamza El Alaoui (Carnegie Mellon University - HCII)

- Christine I. Mendoza (Carnegie Mellon University - HCII), co-advised with Anat Caspi (University of Washington)
- Peya Mowar (Carnegie Mellon University - HCII), co-advised with Aaron Steinfeld (Robotics Institute, Carnegie Mellon University)

Ph.D. Graduates

- Yi-Hao Peng (Carnegie Mellon University - HCII), 2026. “Collaborative Accessible AI Agents” First position: Postdoctoral Fellow at MIT CSAIL
- Jessica Yin Huynh (Carnegie Mellon University - LTI), 2026. “Automatic Personalized Evaluation” First position: Lead AI Research Scientist at Ensemble
- Sara Kingsley (Carnegie Mellon University - HCII), 2025. “Designing Evaluations of AI-Driven Systems for the Future of Work: A Risk Measurement Framework” First position: Software Engineering Institute (SEI) at Carnegie Mellon University
- Carla Viegas (Carnegie Mellon University - LTI), 2024. “Methodology for Studying Emotional, Conversational, and Linguistic Facial Expressions”
- Jason Wu (Carnegie Mellon University - HCII), 2024. “Computational Understanding of User Interfaces” First position: Assistant Professor of Computer Science at Purdue University
- Prakhar Gupta (Carnegie Mellon University - LTI), 2023. “Improving Reliability in Dialogue Systems” First position: Research Scientist at Google DeepMind
- Kundan Krishna (Carnegie Mellon University - LTI), 2024. “Improving the Reliability of Language Models for Summarization” First position: Research Scientist at Apple AI/ML
- Stephanie Valencia-Valencia (Carnegie Mellon University - HCII), 2023. “Agency in Augmentative and Alternative Communication” First position: Assistant Professor in the College of Information at the University of Maryland
- Cole Gleason (Carnegie Mellon University - HCII), 2021. “Accessible User-Generated Social Media for People with Vision Impairments” First position: Machine Learning Research Scientist, Apple AI/ML Human-Centered Machine Intelligence
- Anhong Guo (Carnegie Mellon University - HCII), 2020. “Human-AI Systems for Visual Information Access” First position: Assistant Professor of Computer Science and Engineering, University of Michigan
- Ting-Hao Kenneth Huang (Carnegie Mellon University - LTI), 2018. “A Crowd-Powered Conversational Assistant That Automates Itself Over Time” First position: Assistant Professor in the College of Information Sciences and Technology (IST) at Pennsylvania State University
- Erin Brady (University of Rochester), 2015. “Social Microvolunteering: Quick, Free Answers to Visual Questions from Blind People” First position: Assistant Professor in the School of Informatics and Computing, Indiana University Purdue University Indianapolis
- Yu Zhong (University of Rochester), 2015. “Enhancing Access to Complex and Spatial Information for Blind Users of Mobile Devices” First position: Software Engineer in Accessibility Engineering, Google Research

Ph.D. Committee Member

- Kimi Wenzel (Carnegie Mellon University), in progress (defense not yet held).
- Luke Guerdan (Carnegie Mellon University), 2026. “Principled Measurement and Evaluation of AI Systems Under Practical Constraints”
- Yaxin Hu (University of Wisconsin Computer Science), 2026. “Agentic Telepresence Robots for Supporting Inclusive and Meaningful Engagements in Remote Space”
- Julia Cambre (Carnegie Mellon University), 2024. “Designing for Voice in Context”
- Yasmine Kotturi (Carnegie Mellon University), 2022. “Community Oriented Approaches to

Building Peer Support Systems in Work” First position: Assistant Professor at University of Maryland Baltimore County

- Abdelkareem Bedri (Carnegie Mellon University), 2021. “Enabling Automatic Diet Monitoring Systems in Real-World Settings” First position: Research Scientist at Apple
- Michael Rivera (Carnegie Mellon University), 2021. “Digital Fabrication Techniques for 3D Printing with Everyday Materials” First position: Assistant Professor, University of Colorado
- Toby Li (Carnegie Mellon University), 2021. “A Multi-Modal Intelligent Agent that Learns from Demonstrations and Natural Language Instructions” First position: Assistant Professor, Notre Dame University Department of Computer Science
- Joseph Chee Chang (Carnegie Mellon University), 2020. “Supporting Global Context under Evolving User Intents during Data Exploration” First position: Senior Research Scientist at AI2
- Anna Michele Kasunic Das (Carnegie Mellon University), 2019. “Research through Evocative Play: Play-based Methods for Drawing out Contextual Complexities and Understanding Power.”
- Andrii Soviak (Stony Brook University), 2018. “FeelX: a Next Generation Haptic Device for Semantic Web Browsing” First position: Charmtech Labs, LLC
- Yen-Chia Hsu (Carnegie Mellon University), 2018. “Designing Interactive Systems for Community Citizen Science” First position: Assistant Professor, University of Amsterdam
- David Mark Swallow (University of York), 2017. “Understanding and Supporting Web Developers: Working Practices and Resources for the Creation and Evaluation of Accessible Websites” First position: Accessibility Engineer at The Paciello Group
- Sauvik Das (Carnegie Mellon University, HCII), 2017. “Social Cybersecurity: Reshaping Security Through An Empirical Understanding of Human Social Behavior” First position: Assistant Professor, Georgia Institute of Technology
- Amal Fahad (University of Rochester, Computer Science), 2014. “System- and Application-Level Techniques for Limited Resources Environments.” First position: Microsoft
- Yury Puzis (Stony Brook University, Computer Science), 2013. “Accessible Web Automation” First position: Charmtech Labs, LLC
- Surjya Sarathi Ray (University of Rochester, Electrical and Computer Engineering), 2013. “Advertisement-Based Energy Efficient Medium Access Protocols for Wireless Sensor Networks” First position: Post-Doctorate Researcher at the Rochester Institute of Technology
- Adam Sadilek (University of Rochester, Computer Science), 2013. “Modeling Human Behavior at a Large Scale” First position: Data Scientist at Google
- Chen-Hsiang Feng (University of Rochester, Electrical and Computer Engineering), 2013. “Stack Architectures and Protocols for Emerging Wireless Networks” First position: Software Engineer at Intel Corporation
- Faisal Ahmed (Stony Brook University, Computer Science), 2012. “Algorithms and Interfaces for Automated Non-Visual Skimming” First position: NetApp
- Naushad UzZaman (University of Rochester, Computer Science), 2012. “Interpreting the Temporal Aspects of Language.” First position: Research Scientist at Nuance Communications
- John Magee (Boston University, Computer Science), 2011. “Adaptable Interfaces for People with Motion Disabilities.” First position: Visiting Professor at Clark University

Other Professional Activities

- Advisory Board, InformUp (2024-)
- Advisory Board, Coleman Institute for Cognitive Disabilities - University of Colorado (2018-)
- Advisory Board, CommunityForge (2019-2025)
- Member, ACM Future of Computing Academy (2017-2021)

- Advisory Board, ChangeDyslexia (2015-2019)
- Member, Raising the Floor Initiative (raisingthefloor.org) (2009-2018)
- WebAnywhere Web-Based Screen Reader Open Source Project (2007-2018)
- Principal Investigator, National Science Foundation Innovation Corps (2013)
- Founding Faculty Representative, University of Rochester - Digital Media Studies (2010-2013)
- Computer Science Track Instructor, National Federation of the Blind, Youth Slam (2007, 2009, 2011, 2013)
- Architecture Committee Member, Global Public Inclusive Infrastructure (gpri.org) (2010-2011)