

# Nikola Banovic

Curriculum Vitae

October 2025

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University of Michigan, Ann Arbor  
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## EDUCATION

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|------------------------------------------------------------------------------------------------------------------|------|
| <b>Ph.D. in Human-Computer Interaction</b><br>Human-Computer Interaction Institute<br>Carnegie Mellon University | 2018 |
| <b>M.Sc. in Computer Science</b><br>Department of Computer Science<br>University of Toronto                      | 2012 |
| <b>Honours B.Sc. in Computer Science</b><br>Department of Computer Science<br>University of Toronto              | 2010 |
| <b>A.A. in Computer Science</b><br>Computer Science & Information Systems Department<br>Santa Monica College     | 2004 |

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## PROFESSIONAL APPOINTMENTS

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| <b>Associate Director, Michigan Institute for Data &amp; AI in Society (MIDAS)</b><br>University of Michigan-Ann Arbor, Ann Arbor, USA | 2025-present |
| <b>Associate Professor, Electrical Engineering and Computer Science</b><br>University of Michigan-Ann Arbor, Ann Arbor, USA            | 2024-present |
| <b>Assistant Professor, Electrical Engineering and Computer Science</b><br>University of Michigan-Ann Arbor, Ann Arbor, USA            | 2018-2024    |

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## PUBLICATIONS

### Journal Articles (Refereed)

- [J.15] Somayeh Molaei, Lionel Peter Robert, and **Nikola Banovic**. 2025. What Do People Want to Know about Artificial Intelligence (AI)? The Importance of Answering End-user Questions to Explain Autonomous Vehicle (AV) Decisions. *Proc. ACM Hum.-Comput. Interact.*, 9, 7, (Oct. 2025). doi: 10.1145/3757437.
- [J.14] Tess Eschebach, **Nikola Banovic**, and Allison McDonald. 2025. Playing 'Google's Game': How Educational YouTubers Manage Tensions Between Education and Monetization. *Proc. ACM Hum.-Comput. Interact.*, 9, 7, (Oct. 2025). doi: 10.1145/3757496.
- [J.13] Nel Escher, Jeffrey Bilik, **Nikola Banovic**, and Ben Green. 2024. Code-ifying the Law: How Disciplinary Divides Afflict the Development of Legal Software. *Proc. ACM Hum.-Comput. Interact.*, 8, CSCW2, (Nov. 2024). doi: 10.1145/3686937.
- [J.12] Patrick C. Kinnunen, Kenneth K. Y. Ho, Siddhartha Srivastava, Chengyang Huang, Wanggang Shen, Krishna Garikipati, Gary D. Luker, **Nikola Banovic**, Xun Huan, Jennifer J. Linderman, and Kathryn E. Luker. 2024. Integrating inverse reinforcement learning into data-driven mechanistic computational models: a novel paradigm to decode cancer cell heterogeneity. *Frontiers in Systems Biology*, 4. doi: 10.3389/fsysb.2024.1333760.

- [J.11] Sarah Jabbour, David Fouhey, Stephanie Shepard, Thomas S. Valley, Ella A. Kazerooni, **Nikola Banovic**, Jenna Wiens, and Michael W. Sjoding. 2023. Measuring the Impact of AI in the Diagnosis of Hospitalized Patients: A Randomized Clinical Vignette Survey Study. *JAMA*, 330, 23, (Dec. 2023), 2275–2284. doi: 10.1001/jama.2023.22295.
- [J.10] **Nikola Banovic**, Zhuoran Yang, Aditya Ramesh, and Alice Liu. 2023. Being Trustworthy is Not Enough: How Untrustworthy Artificial Intelligence (AI) Can Deceive the End-Users and Gain Their Trust. *Proc. ACM Hum.-Comput. Interact.*, 7, CSCW1, (Apr. 2023). doi: 10.1145/3579460.
- [J.9] Anindya Das Antar, Anna Kratz, and **Nikola Banovic**. 2023. Behavior Modeling Approach for Forecasting Physical Functioning of People with Multiple Sclerosis. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.*, 7, 1, (Mar. 2023). doi: 10.1145/3580887.
- [J.8] Tahera Hossain, Wanggang Shen, Anindya Antar, Snehal Prabhudesai, Sozo Inoue, Xun Huan, and **Nikola Banovic**. 2023. A Bayesian Approach for Quantifying Data Scarcity when Modeling Human Behavior via Inverse Reinforcement Learning. *ACM Trans. Comput.-Hum. Interact.*, 30, 1, (Mar. 2023). doi: 10.1145/3551388.
- [J.7] Snehal Prabhudesai, Jeremiah Hauth, Dingkun Guo, Arvind Rao, **Nikola Banovic**, and Xun Huan. 2023. Lowering the computational barrier: Partially Bayesian neural networks for transparency in medical imaging AI. *Frontiers in Computer Science*, 5. doi: 10.3389/fcomp.2023.1071174.
- [J.6] Xincheng Huang, Keylonnie L. Miller, Alanson P. Sample, and **Nikola Banovic**. 2023. StructureSense: Inferring Constructive Assembly Structures from User Behaviors. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.*, 6, 4, (Jan. 2023). doi: 10.1145/3570343.
- [J.5] Sumit Asthana, Sabrina Tobar Thommel, Aaron Lee Halfaker, and **Nikola Banovic**. 2021. Automatically Labeling Low Quality Content on Wikipedia By Leveraging Patterns in Editing Behaviors. *Proc. ACM Hum.-Comput. Interact.*, 5, CSCW2, (Oct. 2021). doi: 10.1145/3479503.
- [J.4] Snehal Prabhudesai, Nicholas C. Wang, Vinayak Ahluwalia, Xun Huan, Jayapalli R. Bapuraj, **Nikola Banovic**, and Arvind Rao. 2021. Stratification by Tumor Grade Groups in a Holistic Evaluation of Machine Learning for Brain Tumor Segmentation. *Frontiers in Neuroscience*, 15. doi: 10.3389/fnins.2021.740353.
- [J.3] Nel Escher and **Nikola Banovic**. 2020. Exposing Error in Poverty Management Technology: A Method for Auditing Government Benefits Screening Tools. *Proc. ACM Hum.-Comput. Interact.*, 4, CSCW1, (May 2020). doi: 10.1145/3392874.
- [J.2] **Nikola Banovic** and John Krumm. 2018. Warming Up to Cold Start Personalization. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.*, 1, 4, (Jan. 2018). doi: 10.1145/3161175.
- [J.1] **Nikola Banovic**, Koji Yatani, and Khai N. Truong. 2013. Escape-KeyBoard: A Sight-Free One-Handed Text Entry Method for Mobile Touch-screen Devices. *Int. J. Mob. Hum. Comput. Interact.*, 5, 3, (July 2013), 42–61. doi: 10.4018/jmhci.2013070103.

## Conference Proceedings (Refereed)

- [C.23] Anindya Das Antar, Xun Huan, and **Nikola Banovic**. 2025. "Do Your Guardrails Even Guard?" Method for Evaluating Effectiveness of Moderation Guardrails in Aligning LLM Outputs with Expert User Expectations. *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society*, 8, 1, (Oct. 2025), 705–718. doi: 10.1609/aies.v8i1.36583.
- [C.22] Snehal Prabhudesai, Ananya Prashant Kasi, Anmol Mansingh, Anindya Das Antar, Hua Shen, and **Nikola Banovic**. 2025. "Here the GPT made a choice, and every choice can be biased": How Students Critically Engage with LLMs through End-User Auditing Activity. In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (CHI '25). Association for Computing Machinery. doi: 10.1145/3706598.3713714.
- [C.21] Anindya Das Antar, Somayeh Molaei, Yan-Ying Chen, Matthew L Lee, and **Nikola Banovic**. 2024. VIME: Visual Interactive Model Explorer for Identifying Capabilities and Limitations of Machine Learning Models for Sequential Decision-Making. In *Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology* (UIST '24). Association for Computing Machinery, Pittsburgh, PA, USA. doi: 10.1145/3654777.3676323.
- [C.20] Sumit Asthana, Jane Im, Zhe Chen, and **Nikola Banovic**. 2024. "I know even if you don't tell me": Understanding Users' Privacy Preferences Regarding AI-based Inferences of Sensitive Information for Personalization. In *Proceedings of the CHI Conference on Human Factors in Computing Systems* (CHI '24). Association for Computing Machinery, Honolulu, HI, USA. doi: 10.1145/3613904.3642180.
- [C.19] Divya Ramesh, Caitlin Henning, Nel Escher, Haiyi Zhu, Min Kyung Lee, and **Nikola Banovic**. 2023. Ludification as a Lens for Algorithmic Management: A Case Study of Gig-Workers' Experiences of Ambiguity in Instacart Work. In *Proceedings of the 2023 ACM Designing Interactive Systems Conference* (DIS '23). Association for Computing Machinery, Pittsburgh, PA, USA, 638–651. doi: 10.1145/3563657.3596004.
- [C.18] Jane Im, Ruiyi Wang, Weikun Lyu, Nick Cook, Hana Habib, Lorrie Faith Cranor, **Nikola Banovic**, and Florian Schaub. 2023. Less is Not More: Improving Findability and Actionability of Privacy Controls for Online Behavioral Advertising. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (CHI '23). Association for Computing Machinery, Hamburg, Germany. doi: 10.1145/3544548.3580773.

- [C.17] Snehal Prabhudesai, Leyao Yang, Sumit Asthana, Xun Huan, Q. Vera Liao, and **Nikola Banovic**. 2023. Understanding Uncertainty: How Lay Decision-makers Perceive and Interpret Uncertainty in Human-AI Decision Making. In *Proceedings of the 28th International Conference on Intelligent User Interfaces (IUI '23)*. Association for Computing Machinery, Sydney, NSW, Australia, 379–396. doi: 10.1145/3581641.3584033.
- [C.16] Enhao Zhang and **Nikola Banovic**. 2021. Method for Exploring Generative Adversarial Networks (GANs) via Automatically Generated Image Galleries. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21)*. Association for Computing Machinery, Yokohama, Japan. doi: 10.1145/3411764.3445714.
- [C.15] **Nikola Banovic**, Ticha Sethapakdi, Yasasvi Hari, Anind K. Dey, and Jennifer Mankoff. 2019. The Limits of Expert Text Entry Speed on Mobile Keyboards with Autocorrect. In *Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '19)*. Association for Computing Machinery, Taipei, Taiwan. doi: 10.1145/3338286.3340126.
- [C.14] Rushil Khurana, **Nikola Banovic**, and Kent Lyons. 2018. In only 3 minutes: perceived exertion limits of smartwatch use. In *Proceedings of the 2018 ACM International Symposium on Wearable Computers (ISWC '18)*. Association for Computing Machinery, Singapore, Singapore, 208–211. doi: 10.1145/3267242.3267285.
- [C.13] Qian Yang, **Nikola Banovic**, and John Zimmerman. 2018. Mapping Machine Learning Advances from HCI Research to Reveal Starting Places for Design Innovation. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. Association for Computing Machinery, Montreal QC, Canada, 1–11. doi: 10.1145/3173574.3173704.
- [C.12] **Nikola Banovic**, Varun Rao, Abinaya Saravanan, Anind K. Dey, and Jennifer Mankoff. 2017. Quantifying Aversion to Costly Typing Errors in Expert Mobile Text Entry. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. Association for Computing Machinery, Denver, Colorado, USA, 4229–4241. doi: 10.1145/3025453.3025695.
- [C.11] **Nikola Banovic**, Anqi Wang, Yanfeng Jin, Christie Chang, Julian Ramos, Anind Dey, and Jennifer Mankoff. 2017. Leveraging Human Routine Models to Detect and Generate Human Behaviors. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. Association for Computing Machinery, Denver, Colorado, USA, 6683–6694. doi: 10.1145/3025453.3025571.
- [C.10] **Nikola Banovic**, Tofi Buzali, Fanny Chevalier, Jennifer Mankoff, and Anind K. Dey. 2016. Modeling and Understanding Human Routine Behavior. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16)*. Association for Computing Machinery, San Jose, California, USA, 248–260. doi: 10.1145/2858036.2858557.
- [C.9] Karen Church, Denzil Ferreira, **Nikola Banovic**, and Kent Lyons. 2015. Understanding the Challenges of Mobile Phone Usage Data. In *Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '15)*. Association for Computing Machinery, Copenhagen, Denmark, 504–514. doi: 10.1145/2785830.2785891.
- [C.8] **Nikola Banovic**, Christina Brant, Jennifer Mankoff, and Anind Dey. 2014. ProactiveTasks: the short of mobile device use sessions. In *Proceedings of the 16th International Conference on Human-Computer Interaction with Mobile Devices & Services (MobileHCI '14)*. Association for Computing Machinery, Toronto, ON, Canada, 243–252. doi: 10.1145/2628363.2628380.
- [C.7] Christian Koehler, **Nikola Banovic**, Ian Oakley, Jennifer Mankoff, and Anind K. Dey. 2014. Indoor-ALPS: an adaptive indoor location prediction system. In *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '14)*. Association for Computing Machinery, Seattle, Washington, 171–181. doi: 10.1145/2632048.2632069.
- [C.6] **Nikola Banovic**, Rachel L. Franz, Khai N. Truong, Jennifer Mankoff, and Anind K. Dey. 2013. Uncovering information needs for independent spatial learning for users who are visually impaired. In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '13)*. Association for Computing Machinery, Bellevue, Washington. doi: 10.1145/2513383.2513445.
- [C.5] **Nikola Banovic**, Tovi Grossman, and George Fitzmaurice. 2013. The effect of time-based cost of error in target-directed pointing tasks. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13)*. Association for Computing Machinery, Paris, France, 1373–1382. doi: 10.1145/2470654.2466181.
- [C.4] **Nikola Banovic**, Tovi Grossman, Justin Matejka, and George Fitzmaurice. 2012. Waken: reverse engineering usage information and interface structure from software videos. In *Proceedings of the 25th Annual ACM Symposium on User Interface Software and Technology (UIST '12)*. Association for Computing Machinery, Cambridge, Massachusetts, USA, 83–92. doi: 10.1145/2380116.2380129.
- [C.3] **Nikola Banovic**, Fanny Chevalier, Tovi Grossman, and George Fitzmaurice. 2012. Triggering triggers and burying barriers to customizing software. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*. Association for Computing Machinery, Austin, Texas, USA, 2717–2726. doi: 10.1145/2207676.2208666.
- [C.2] Koji Yatani, **Nikola Banovic**, and Khai Truong. 2012. SpaceSense: representing geographical information to visually impaired people using spatial tactile feedback. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*. Association for Computing Machinery, Austin, Texas, USA, 415–424. doi: 10.1145/2207676.2207734.
- [C.1] **Nikola Banovic**, Frank Chun Yat Li, David Dearman, Koji Yatani, and Khai N. Truong. 2011. Design of unimanual multi-finger pie menu interaction. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces (ITS '11)*. Association for Computing Machinery, Kobe, Japan, 120–129. doi: 10.1145/2076354.2076378.

## Extended Abstracts (Refereed & Juried)

- [EA.10] Xun Huan, Valeriy Yu Ivanov, Francina Dominguez, John Ziker, **Nikola Banovic**, Richard Gonzalez, Brian F. Jewett, Chen Cheng, Vinh Tran, Snehal Prabhudesai, Deffi Putri, Kevin Gray, Sudhansu Rath, Remi Masterson, and Sarah Whitaker. 2024. A physics-human integrated decision-making framework for DoD installations under flood risks. In *AGU Fall Meeting Abstracts*. (Dec. 2024).
- [EA.9] Shane C. Quinonez, David A. Stewart, and **Nikola Banovic**. 2024. ChatGPT and Artificial Intelligence in Graduate Medical Education Program Applications. *Journal of Graduate Medical Education*, 16, 4, (Aug. 2024), 391–394. doi: 10.4300/JGME-D-23-00823.1.
- [EA.8] Nel Escher and **Nikola Banovic**. 2024. Hexing Twitter: Channeling Ancient Magic to Bind Mechanisms of Extraction. In *Extended Abstracts of the 2024 CHI Conference on Human Factors in Computing Systems* (CHI EA '24). Association for Computing Machinery. doi: 10.1145/3613905.3644071.
- [EA.7] Jane Im, **Nikola Banovic**, and Florian Schaub. 2022. Designing and Building Social Platforms Grounded in Consent. In *Trust and Safety Research Conference*.
- [EA.6] Nel Escher, Jeffrey Bilik, Alexander Miller, Jennifer Jiyoung Huseby, Divya Ramesh, Alice Liu, Sam Mikell, Nina Cahill, Ben Green, and **Nikola Banovic**. 2022. Cod(e)ifying The Law. In *Programming Languages and the Law (Prolala) 2022*.
- [EA.5] John Joon Young Chung, Fuhu Xiao, **Nikola Banovic**, and Walter S. Lasecki. 2019. Towards Instantaneous Recovery from Autonomous System Failures via Predictive Crowdsourcing. In *Adjunct Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology* (UIST '19 Adjunct). Association for Computing Machinery, New Orleans, LA, USA, 16–18. doi: 10.1145/3332167.3357100.
- [EA.4] Per Ola Kristensson, **Nikola Banovic**, Antti Oulasvirta, and John Williamson. 2019. Computational Interaction with Bayesian Methods. In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems* (CHI EA '19). Association for Computing Machinery, Glasgow, Scotland Uk, 1–6. doi: 10.1145/3290607.3298820.
- [EA.3] Megh Marathe, Ting-Wei Chang, Lucky Chowdhury, Michelle L. Chung, Chia-Hsuan Su, YoonSeon Yi, **Nikola Banovic**, Alanson Sample, and Gabriela Marcu. 2019. Tedious versus taxing: Needs assessment in a pediatric feeding disorder clinic. In *CHI'19 Workshop on "Workgroup in Interactive Systems for Healthcare (WISH) Symposium"*.
- [EA.2] John Joon Young Chung, Fuhu Xiao, Nicholas Recker, Kammeran Barnes, **Nikola Banovic**, and Walter S Lasecki. 2019. Accident prevention with predictive instantaneous crowdsourcing. In *CHI'19 Workshop on "Looking into the Future: Weaving the Threads of Vehicle Automation"*.
- [EA.1] **Nikola Banovic**. 2017. Method for Understanding Complex Human Routine Behaviors from Large Behavior Logs. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '17). Association for Computing Machinery, Denver, Colorado, USA, 254–258. doi: 10.1145/3027063.3027135.

## Workshops Organized (Juried)

- [W.2] Kashyap Todi, Jean Vanderdonckt, Xiaojuan Ma, Jeffrey Nichols, and **Nikola Banovic**. 2020. AI4AUI: Workshop on AI Methods for Adaptive User Interfaces. In *Companion Proceedings of the 25th International Conference on Intelligent User Interfaces* (IUI '20 Companion). Association for Computing Machinery, Cagliari, Italy, 17–18. doi: 10.1145/3379336.3379359.
- [W.1] **Nikola Banovic**, Antti Oulasvirta, and Per Ola Kristensson. 2019. Computational Modeling in Human-Computer Interaction. In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems* (CHI EA '19). Association for Computing Machinery, Glasgow, Scotland Uk, 1–7. doi: 10.1145/3290607.3299032.

## Edited Books

- [EB.1] John Williamson, Antti Oulasvirta, Per Ola Kristensson, and **Nikola Banovic**, (Eds.) 2022. *Bayesian Methods for Interaction and Design*. Cambridge University Press.

## Dissertation

- [D.1] **Nikola Banovic**. 2018. Computational Method for Understanding Complex Human Routine Behaviors, (May 2018). doi: 10.1184/R1/7188812.v1.

## Book Chapters, Invited Articles & Technical Reports

- [T.4] Chung Hoon Hong, Yuan Liang, Sagnik Sinha Roy, Arushi Jain, Vihang Agarwal, Ryan Draves, Zhizhuo Zhou, William Chen, Yujian Liu, Martha Miracky, Lily Ge, **Nikola Banovic**, and David Jurgens. 2020. Audrey: A Personalized Open-Domain Conversational Bot. (2020). <https://arxiv.org/abs/2011.05910>.
- [T.3] **Nikola Banovic**, Jennifer Mankoff, and Anind K Dey. 2018. Computational model of human routine behaviors. In *Computational Interaction*. Oxford University Press, Oxford, 377–398.
- [T.2] Julian Ramos, Zhen Li, Johana Rosas, **Nikola Banovic**, Jennifer Mankoff, and Anind Dey. 2016. Keyboard Surface Interaction: Making the keyboard into a pointing device. (2016). <https://arxiv.org/abs/1601.04029>.
- [T.1] **Nikola Banovic**. 2016. To Replicate or Not to Replicate? *GetMobile: Mobile Comp. and Comm.*, 19, 4, (Mar. 2016), 23–27. DOI: 10.1145/2904337.2904346.

## AWARDS AND HONORS

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|                                                        |           |
|--------------------------------------------------------|-----------|
| NSF CAREER Award                                       | 2023      |
| Amazon Alexa Prize Semi-finalist                       | 2020      |
| Honorable Mention Award (CHI '17)                      | 2017      |
| Honorable Mention Award (CHI '16)                      | 2016      |
| Yahoo! Fellow                                          | 2015      |
| Honorable Mention Award (MobileHCI '15)                | 2015      |
| Best Paper Award (MobileHCI '14)                       | 2014      |
| NSERC Post-graduate Scholarship                        | 2013-2016 |
| Wolfond Scholarship in Wireless Information Technology | 2010      |

## GRANTS AND FELLOWSHIPS

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Flood and Weather Resilience through Risk-Informed Operations and Readiness</b><br>Office of Naval Research (ONR); Co-PI; \$5,227,827                                                                                 | 2025-2029 |
| <b>Facilitating Appropriate Reliance on Generative AI (GenAI) Tools<br/>by Investigating Reliance Decisions and Norms</b><br>Michigan Institute for Data & AI in Society (MIDAS); Co-I; \$75,000                         | 2025-2026 |
| <b>Advancing Responsible AI by Rethinking the Roles of Marginalized<br/>Communities in the Innovation Lifecycle: Developing the UBEC Approach</b><br>Michigan Institute for Data & AI in Society (MIDAS); Co-I; \$75,000 | 2024-2025 |
| <b>Patient Oriented Research and Mentoring in Multidisciplinary<br/>Chronic Pain Treatments</b><br>National Institutes of Health (NIH); Co-I; \$128,488                                                                  | 2024-2029 |
| <b>CAREER: Achieving Explainable Artificial Intelligence (AI)<br/>through Human-AI Interaction</b><br>National Science Foundation (NSF); PI; \$582,031                                                                   | 2023-2028 |
| <b>Decision-Making with Uncertainty for DoD Installations under Climate<br/>Change Impacts on Flood Risks</b><br>Office of Naval Research (ONR); Co-PI; \$2,690,000                                                      | 2023-2025 |
| <b>Detecting and Countering Untrustworthy AI through AI Literacy</b><br>Michigan Institute for Data & AI in Society (MIDAS); PI; \$75,000                                                                                | 2023-2024 |
| <b>Human-AI Collaborations to Improve Accuracy and Mitigate Bias<br/>in Acute Dyspnea Diagnosis</b><br>National Institutes of Health (NIH); Co-I; \$2,758,838                                                            | 2022-2025 |
| <b>Predicting Single Cell Behavior</b><br>W. M. Keck Foundation; Co-I; \$1,000,000                                                                                                                                       | 2022-2024 |

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| <b>Learning from the Unseen Experience of Expert Users to Support Machine-aided Decision-making</b><br>Toyota Research Institute (TRI); PI; \$975,000                                 | 2021-2024 |
| <b>Practical and Optimal Sequential Bayesian Experimental Design for Complex Systems Incorporating Human Experimenter Preferences</b><br>Department of Energy (DoE); Co-PI; \$970,822 | 2020-2023 |
| <b>EAGER: SaTC-EDU: Identifying Educational Conceptions and Challenges in Cybersecurity and AI</b><br>National Science Foundation (NSF); Co-I; \$300,000                              | 2020-2023 |
| <b>Modeling and Understanding Human-Machine Teaming and Decision Making</b><br>Toyota Research Institute (TRI); PI; \$100,000                                                         | 2019-2021 |
| <b>Personalization through ML models using Temporal Consumer Interactions Data</b><br>Procter and Gamble (P&G); PI; \$100,000                                                         | 2018-2019 |

## INVITED TALKS AND PANELS

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| <b>Informing and Communicating Responsible AI Policy through Design Probes</b><br>Workshop on Human-Centered Machine Learning, Apple, Cupertino, USA | 08/2025 |
| <b>Informing and Communicating Responsible AI Policy through Design Probes</b><br>Apple, Pittsburgh, USA                                             | 11/2024 |
| <b>Detecting and Countering Untrustworthy Artificial Intelligence (AI)</b><br>DGP Seminar Series, University of Toronto, Canada                      | 12/2023 |
| <b>Detecting and Countering Untrustworthy Artificial Intelligence (AI)</b><br>Distinguished Lecture Series, University of Virginia, USA              | 11/2023 |
| <b>Detecting and Countering Untrustworthy Artificial Intelligence (AI)</b><br>Keynote at the AI & HCI Workshop (ICML 2023)                           | 07/2023 |
| <b>Panel on AI shaping the future of Trust, Safety, Privacy &amp; Security</b><br>Human-Computer Interaction Consortium (HCIC 2023)                  | 06/2023 |
| <b>Detecting and Countering Untrustworthy Artificial Intelligence (AI)</b><br>Seminar Series, University of Glasgow, UK                              | 05/2023 |
| <b>Explainability and Interpretability through Interaction</b><br>2021 ICIEV & IVPR Keynote Series                                                   | 01/2021 |
| <b>Computational Modeling in Human-Computer Interaction</b><br>Seminar Series on Data Science, University of Lisbon                                  | 11/2020 |
| <b>Computational Modeling in Human-Computer Interaction</b><br>Joint 2019 ICIEV, IVPR, & ABC                                                         | 06/2019 |
| <b>Computational Models of Human Behavior</b><br>Dagstuhl Seminar on Computational Interactivity, Germany                                            | 06/2017 |
| <b>Human Data Driven Interfaces</b><br>Computer Science Department, University of Toronto, Toronto, Canada                                           | 03/2017 |
| <b>Human Data Driven Interfaces</b><br>Bosch Research and Technology Center, Pittsburgh, USA                                                         | 12/2016 |
| <b>Streamlining Mobile Device Use</b><br>DGP, Computer Science Department, University of Toronto, Toronto, Canada                                    | 08/2015 |
| <b>Streamlining Mobile Device Use</b><br>DUB, University of Washington, Seattle, USA                                                                 | 07/2015 |

## CAMPUS/DEPARTMENTAL TALKS

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|------------------------------------------------------------------------------------|---------|
| <b>“How do I know I can trust ChatGPT?” Critically Engaging with Generative AI</b> | 06/2025 |
| MaCSS Scholars Program, University of Michigan, Ann Arbor, USA                     |         |
| <b>Detecting and Countering Untrustworthy Artificial Intelligence (AI)</b>         | 11/2023 |
| CSE Faculty Seminar Series, University of Michigan, Ann Arbor, USA                 |         |
| <b>Interactive Human-centered Explainable Artificial Intelligence (XAI)</b>        | 03/2023 |
| UX@UM, University of Michigan, Ann Arbor, USA                                      |         |
| <b>Computational Modeling in Human-Computer Interaction</b>                        | 10/2018 |
| Michigan AI Symposium 2018, University of Michigan, Ann Arbor, USA                 |         |

## TEACHING EXPERIENCE

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### University of Michigan, Ann Arbor, USA

#### Graduate Courses

|                               |                                                |
|-------------------------------|------------------------------------------------|
| Human-Computer Interaction    | taught six times between Winter '20 & Fall '25 |
| Computational Modeling in HCI | Fall '18, Fall '19                             |

#### Undergraduate Courses

|                            |                                                    |
|----------------------------|----------------------------------------------------|
| User Interface Development | taught three times between Winter '21 & Winter '23 |
| Modeling Human Behavior    | Winter '19                                         |

### Carnegie Mellon University, Pittsburgh, USA

|                                                 |            |
|-------------------------------------------------|------------|
| Interactive Data Science (Instructor of record) | Spring '17 |
| Software Structures for User Interfaces         | Fall '15   |
| User-Centered Research & Evaluation             | Fall '14   |

### University of Toronto, Toronto, Canada

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| The Design of Interactive Computational Media | Fall '10, Spring '11, Fall '11 |
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## ADVISING EXPERIENCE

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### University of Michigan, Ann Arbor, USA

#### Current Ph.D. Students

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|--------------------|-----------------|
| Snehal Prabhudesai | Tsedeniya Amare |
| Jaewoong Choi      | Ishika Joshi    |

#### Graduated Doctoral Students

|                                                                                 |      |
|---------------------------------------------------------------------------------|------|
| Nel Escher (moved on to Postdoctoral Fellow at UC Berkeley)                     | 2025 |
| Sumit Asthana (moved on to Applied Scientist at Microsoft)                      | 2025 |
| Anindya Das Antar (moved on to Postdoctoral Fellow at University of Notre Dame) | 2025 |
| Divya Ramesh (moved on to Tenure-track Assistant Professor at UNCC)             | 2025 |

## Doctoral Committees

|                     |      |                     |      |                  |      |
|---------------------|------|---------------------|------|------------------|------|
| Chengyang Huang     | 2025 | Shengpu Tang        | 2024 | Jordan Huffaker  | 2023 |
| Agrima Seth         | 2025 | Harry Rubin-Falcone | 2024 | Bryan Stearns    | 2022 |
| Tamara Nelson-Fromm | 2025 | John Chung          | 2023 | Ian Fox          | 2021 |
| Andrew McCrabb      | 2025 | Preeti Ramaraj      | 2023 | Matthew Bernhard | 2021 |
| Yasha S. Iravantchi | 2025 | Wanggang Shen       | 2023 | Sai Gouravajhala | 2021 |
| Amani Alkayyali     | 2024 | Mimansa Jaiswal     | 2023 | Chuan-Che Huang  | 2019 |

## Past Post-doctoral Researchers

Somayeh Molaei (moved on to Data Scientist at HealthyLifetime) 2021-2023

## Past Undergraduate and Masters Student Research Assistants

|                                                                        |      |
|------------------------------------------------------------------------|------|
| Ananya Kasi (moved on to PhD at Georgia Tech)                          | 2025 |
| Daniel Chechelnitsky (moved on to PhD at Carnegie Mellon University)   | 2024 |
| Tess Eschebach (moved on to PhD at the University of Chicago)          | 2023 |
| Zhe Chen (moved on to Ecological)                                      | 2023 |
| Ruiyi Wang (moved on to Masters at Carnegie Mellon University)         | 2022 |
| Caitlin Henning (moved on to Foley & Lardner LLP)                      | 2022 |
| Xincheng Huang (moved on to PhD at the University of British Columbia) | 2021 |
| Keylonnie L. Miller (moved on to Meta)                                 | 2021 |
| Kevin Pu (moved on to PhD at the University of Toronto)                | 2020 |
| Sabrina Tobar Thommel (moved on to Meta)                               | 2020 |
| Enhao Zhang (moved on to PhD at the University of Washington)          | 2020 |

## RESEARCH EXPERIENCE

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|                                                    |                 |
|----------------------------------------------------|-----------------|
| <b>Graduate Research Assistant</b>                 | 08/2012-08/2018 |
| Carnegie Mellon University, Pittsburgh, USA        |                 |
| <b>Machine Learning Intern</b>                     | 05/2016-07/2016 |
| Uber Advanced Technologies Center, Pittsburgh, USA |                 |
| <b>Research Intern</b>                             | 05/2015-08/2015 |
| Microsoft Research, Redmond, USA                   |                 |
| <b>Research Intern</b>                             | 01/2012-09/2012 |
| Autodesk Research, Toronto, Canada                 | 05/2011-09/2011 |
| <b>Graduate Research Assistant</b>                 | 09/2010-12/2011 |
| University of Toronto, Toronto, Canada             |                 |

## SERVICE TO PROFESSION

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### Program Chair (PC)

2027 ACM Conference on Intelligent User Interfaces (ACM IUI) 2025-present

### Subcommittee Chair (SC)

2026 CHI Conference on Human Factors in Computing Systems (CHI) 2025-present

### Associate Editor (AE)

PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 2019-2023



## Associate Chair (AC) / Program Committee (PC) Member

|                                                                 |                 |
|-----------------------------------------------------------------|-----------------|
| AI, Ethics, and Society (AIES)                                  | 2025            |
| CHI Conference on Human Factors in Computing Systems (CHI)      | 2018, 2020-2024 |
| Computer-Supported Cooperative Work and Social Computing (CSCW) | 2024            |
| Fairness, Accountability and Transparency (FAccT)               | 2022, 2023      |
| User Interface Software and Technology (UIST)                   | 2020-2023       |
| Graphics Interface (GI)                                         | 2020            |
| The Web Conference (TheWebConf)                                 | 2020            |
| Visualization in Data Science (VDS)                             | 2018-2019       |

## Organizing Committees

|                                                                    |           |
|--------------------------------------------------------------------|-----------|
| CHI 2025 Workshops Co-chair                                        | 2024-2025 |
| The 7th Summer School on Computational Interaction (CIX2023) Chair | 2023      |
| Ubicomp & ISWC 2021 Workshop and Tutorial Co-chair                 | 2020-2021 |
| UIST 2017 Publicity Co-chair                                       | 2017      |
| Ubicomp & ISWC 2017 Publicity Co-chair                             | 2017      |

## Workshop Organizer

|                                                                               |      |
|-------------------------------------------------------------------------------|------|
| ACM IUI 2020 Workshop on AI Methods for Adaptive User Interfaces              | 2020 |
| ACM CHI 2019 Workshop on Computational Modeling in Human-Computer Interaction | 2019 |

## External Reviewer

|           |                            |                          |
|-----------|----------------------------|--------------------------|
| CHI       | Int. Journal of HCI        | IEEE Intelligent Systems |
| TOCHI     | Human-Computer Interaction | IEEE Pervasive Comput.   |
| CSCW      | IMWUT                      | IEEE Trans. Mob. Comput. |
| UIST      | Ubicomp                    | IJCAI                    |
| TiiS      | ISWC                       | INTERACT                 |
| DIS       | Pervasive and Mob. Comput. | SIGGRAPH                 |
| MobileHCI | Pervasive Health           |                          |

## DEPARTMENTAL/UNIVERSITY SERVICE

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### University of Michigan, Ann Arbor, USA

|                                                                             |                  |
|-----------------------------------------------------------------------------|------------------|
| CSE Student Outreach Committee Chair                                        | 2025-26          |
| CSE Curriculum Review Committee Member                                      | 2025-26          |
| CSE Diversity, Equity, and Inclusion (DEI) Chair                            | 2023-24          |
| The Weinberg Institute for Cognitive Science Undergraduate Committee Member | 2022-23, 2023-24 |
| CSE Tenure Track Recruiting and Hosting Committee Member                    | 2021-22, 2022-23 |
| CSE Graduate Fellowship Workshop Chair                                      | 2022-23          |
| CSE Graduate Recruiting Committee Member                                    | 2022-23          |
| CSE Graduate Recruiting Committee Chair                                     | 2020-21, 2021-22 |
| CSE Graduate Admission Committee Member                                     | 2018-19, 2019-20 |
| CSE Faculty Seminar Series Chair                                            | 2018-19          |

## EXTRACURRICULAR UNIVERSITY SERVICE

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### University of Michigan, Ann Arbor, USA

|                                                   |           |
|---------------------------------------------------|-----------|
| Tech4Social Good                                  | 2020-2023 |
| Undergraduate Student Organization Faculty Mentor |           |

## MEDIA COVERAGE

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- [M.4] AFP. 2025. Does 'vibe coding' make everyone a programmer? *The Economic Times*, (Mar. 2025).
- [M.3] C. T. Jones. 2024. Twitter Updated Its AI Chatbot. The Images Are A Dumpster Fire. *Rolling Stone*, (Aug. 2024).
- [M.2] Hilary Achauer. 2023. Your Next Fitness Coach Could Be a Robot. *New York Times*, (Apr. 2023).
- [M.1] Kate Giammarise. 2020. Study: Pa. benefits screening tool may be telling potential applicants they don't qualify. *Pittsburgh Post-Gazette*, (Sept. 2020).

## PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

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Association for Computing Machinery (ACM)  
Special Interest Group on Computer-Human Interaction (ACM SIGCHI)