

# ALEXANDRA BREMERS

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Information Science PhD Candidate at Cornell Tech, where I am advised by Prof. Wendy Ju. My background is in design and computation. I aspire to build interactive physical systems to support human creativity. Prior to my PhD, I worked as an automotive researcher at Jaguar Land Rover. I expect to graduate in Fall 2025.

## EMPLOYMENT HISTORY

- 2020– *Graduate Research/Teaching Assistant*, **Cornell Tech**, New York, NY, USA
- 2023 (summer) *Associate Principal*, **Accenture**, San Francisco, CA, USA
- 2021 (summer) *Research Intern*, **Toyota Research Institute**, Los Altos, CA, USA (remote)
- 2017–2020 *Human-Machine Interface Researcher*, **Jaguar Land Rover**, Coventry, UK
- 2017 (summer) *Research Intern*, **National Taiwan University IoX Center**, Taipei, TW
- 2015 (fall) *Industrial Design Intern*, **Next Nature Network**, Amsterdam, NL

## EDUCATION

- 2020–2025 *Information Science (Ph.D.)*, **Cornell University**, USA
- 2020–2023 *Information Science (M.S.)*, **Cornell University**, USA
- 2019 *Automotive Human-Technology Interaction (5 M.Eng. credits)*, **Warwick University**, UK
- 2016–2018 *Artificial Intelligence (M.S.)*, **Utrecht University**, NL
- 2013–2016 *Industrial Design (B.S.)*, **TU Eindhoven**, NL

## HONOURS & AWARDS

- Honors & Awards
  - Royal Commission of 1851 Industrial Fellowship (2020), £90,000
  - PhD Fellowship (University of Cambridge). Declined in order to accept Cornell offer.
  - Tata Innovista & Jaguar Land Rover Innovista Global Finalist (2019)
  - Oxford-Cambridge Rising Women in Science and Engineering (2018)
  - Bruynzeel Storage Systems, Designing the Office, 2nd Student Prize (2015)

## SKILLS

*Software & Tools:* GIMP, InkScape, LaTeX, InDesign, XD, Premiere, Photoshop, Illustrator, Python, R, git  
*Research:* collaboration, writing, electronics prototyping, project management, mentorship

## LANGUAGES

Dutch (native), English (proficient)

## SELECTED PEER-REVIEWED PUBLICATIONS

- Journal Articles Natalie Friedman, **Alexandra Bremers**, Adelaide Nyanyo, Ian Clark, Yasmine Kotturi, Laura Dabbish, Wendy Ju, Nikolas Martelaro. “Understanding the Challenges of Maker Entrepreneurship”. In: *Proceedings of the ACM on Human-Computer Interaction (PACM HCI): Computer-Supported Collaborative Work*. 2024 (forthcoming).
- Nermin Caber, Jiaming Liang, Bashar I. Ahmad, Simon Godsill, **Alexandra Bremers**, Philip Thomas, David Oxtoby, Lee Skrypchuk. “Driver Profiling and Bayesian Workload Estimation for Adaptive In-Vehicle HMI”. In: *IEEE Transactions on Intelligent Vehicles*. 2023. DOI: <https://doi.org/10.48550/arXiv.2303.14720>.
- Alexandra W.D. Bremers**, Ali Özgür Yöntem, Kun Li, Daping Chu, Valerian Meijering, Christian P. Janssen. “Perception of Perspective in Augmented Reality Head-Up Displays”. In: *International Journal of Human-Computer Studies* (2021), p. 102693. ISSN: 1071-5819. DOI: <https://doi.org/10.1016/j.ijhcs.2021.102693>.
- Conference Papers **Alexandra Bremers**, Wendy Ju. “Can Machines Tell What People Want? Bringing Situated Intelligence to Generative AI”. In: *HTTF 2024: Proceedings of the Halfway to the Future Symposium*. 2024 (forthcoming).
- Alexandra Bremers**, Maria Teresa Parreira, Xy Fang, Natalie Friedman, Adolfo Ramirez-Aristizabal, Alexandria Pabst, Mirjana Spasojevic, Mike Kuniavsky, Wendy Ju. “The Bystander Affect Detection (BAD) dataset for failure detection in HRI”. In: *2023 IEEE/RISJ International Conference on Intelligent Robots and Systems (IROS)*. 2023. DOI: <https://doi.org/10.1109/IROS55552.2023.10342442>.
- David Goedicke, **Alexandra Bremers**, Sam Lee, Fanjun Bu, Hiroshi Yasuda, Wendy Ju. “XR-OOM: MiXed Reality Driving Simulation With Real Cars”. In: *Proceedings of the ACM International Conference on Human Computer Interaction (CHI)*. 2022. DOI: <https://doi.org/10.1145/3491102.3517704>.
- Pre-prints **Alexandra Bremers**, Alexandria Pabst, Maria Teresa Parreira, Wendy Ju. “Using Social Cues to Recognize Task Failures for HRI: Overview, State-of-the-Art, and Future Directions”. In: (under review) *arXiv:2301.11972*. 2023. DOI: <https://doi.org/10.48550/arXiv.2301.11972>.
- Short Papers **Alexandra Bremers**, Natalie Friedman, Sam Lee, Tong Wu, Eric Laurier, Malte Jung, Jorge Ortiz, Wendy Ju. “(Social) Trouble on the Road: Understanding and Addressing Social Discomfort in Shared Car Trips”. In: *CUI '24: Proceedings of the 6th International Conference on Conversational User Interfaces*. 2024. URL: <https://bremers.github.io/papers/Bremers2024Social.pdf>.
- Alexandra Bremers**, Wendy Ju. “Designing Interactions for Mixed-Initiative Machines: Balancing Automation and Craftsmanship”. In: *1st International Workshop on Worker-Robot Relations at the 19th Annual ACM/IEEE International Conference on Human-Robot Interaction*. 2024. DOI: <http://dx.doi.org/10.13140/RG.2.2.22111.06562>.
- Fanjun Bu, **Alexandra Bremers**, Mark Colley, Wendy Ju. “Field Notes on Deploying Research Robots in Public Spaces”. In: *Extended Abstracts of the 2024 ACM International Conference on Human Computer Interaction (CHI)*. 2024. DOI: <https://dl.acm.org/doi/10.1145/3613905.3651044>.
- Itay Grinberg, **Alexandra Bremers**, Louisa Pancoast, Wendy Ju. “Implicit collaboration with a drawing machine through dance movements”. In: *ACM Symposium on Computational Fabrication*. 2023. DOI: <https://doi.org/10.48550/arXiv.2310.00215>.
- Avital Dell'Araccia, **Alexandra Bremers**, Wen-Ying Lee, Wendy Ju. “Work in Progress: “Ah! He wants to win!”: Social responses to playing Tic-Tac-Toe against a physical drawing robot”. In: *Adjunct Proceedings of the 2022 ACM International Conference on Tangible and Embodied Interaction*. 2022. DOI: <https://doi.org/10.1145/3490149.3505571>.