

GRETA WARREN

Postdoctoral Researcher, Department of Computer Science, University of Copenhagen

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EDUCATION

Ph.D., School of Computer Science, University College Dublin, Ireland Sep 2019 - Jan 2024

- Dissertation: *User-centred counterfactual explanations for explainable AI*
- Supervisors: Prof. Mark Keane and Prof. Ruth Byrne

B.A. (Hons), Psychology, Trinity College Dublin, University of Dublin, Ireland Sep 2014 - May 2018

- Dissertation: *Effects of additive and subtractive counterfactual thinking on choice of political candidate*
- Supervisor: Prof. Ruth Byrne

RESEARCH EXPERIENCE

Postdoctoral Researcher, Department of Computer Science, University of Copenhagen, Denmark Mar 2024 - Present

- Researcher in the CopeNLU group researching human-centred explanations for automated fact-checking (funded by European Research Council, Grant agreement ID: 101077481).
- Interdisciplinary research addressing the needs of diverse stakeholders: fact-checkers, content moderators, AI developers and end-users.
- Collaborators: Prof. Isabelle Augenstein (PI) and Prof. Irina Shklovski

Accenture Collaboration, Accenture Labs, The Dock, Dublin 2022 - 2023

- Jointly coordinated a collaborative project on group counterfactual explanations: responsible for the management of the project and liaising between Accenture and UCD, reported to the Managing Director at Accenture Labs and PI at UCD.
- Developed a methodology for testing our proposed model, created test materials, performed a user study, analysed the results and prepared an article for publication.

Research Assistant, Trinity College Institute of Neuroscience, Trinity College Dublin, Ireland Sep 2018 - Aug 2019

- Recruited participants and collected electroencephalography (EEG), pupillometric and neuropsychological data, conducted data entry, processing and analysis, compiled hospital research ethics applications
- Delivered talk on brain injury research to patients and staff in National Rehabilitation Hospital, Dublin

TEACHING EXPERIENCE

Teaching Assistant, School of Computer Science, University College Dublin Dublin, Ireland 2020 - 2022

- 2020-2022 Text Analytics, MSc course, coordinated demonstrators and administration, prepared lab materials, facilitated lab sessions and graded assignments
- 2021-2022 Data Science in Python, MSc course, prepared lab materials and facilitated lab sessions
- 2020-2022 Introduction to Programming, BSc course, prepared lab materials, facilitated lab sessions and graded assignments
- 2020-2021 Programming I & Object-Oriented Programming, MSc course, prepared lab materials, facilitated lab sessions and graded assignments

SKILLS

Research Design: Designing and analysing large-scale human behavioural experiments. Extensive experience with Prolific Academic, Alchemer, Survey Monkey and Qualtrics.

Software: Python, R, L^AT_EX, Git, HTML, SPSS, G*power.

Explainable AI: Implementing and comparative evaluation of explainable AI methods in computational experiments.

Science Communication: Disseminating research methodology and results at high-impact international conferences. Communicating psychological and technical research findings to industry audiences and the general public.

AWARDS & SCHOLARSHIPS

Gary Marsden Travel Award, ACM SIGCHI	Mar 2023
Doctoral Consortium Scholarship, ICCBR 2022	Sep 2022
Travel Award, ACM FAccT 2022	Jun 2022
1st Prize, Arthur Cox Alternative Perspectives Essay Competition, Trinity College Law Review	May 2018
First Class Award, Trinity College Dublin	Sep 2015
Entrance Exhibition, Trinity College Dublin	Sep 2014
All Ireland Scholarship, JP McManus Trust	4 year scholarship, Sep 2014

PROFESSIONAL SERVICE

Programme Committee Member / Reviewer

ACM CHI Conference on Human Factors in Computing Systems	2025
Annual Meeting of the Cognitive Science Society (CogSci)	2024, 2025
ACM Conference on Intelligent User Interfaces (IUI) – Poster and Demo Track	2023, 2024, 2025
AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES)	2022, 2023, 2024
Workshop on Explainable AI at International Joint Conference on Artificial Intelligence (XAI @ IJCAI)	2023, 2024
Workshop on Cognitive Aspects of Knowledge Representation at Knowledge Representation (CAKR @ KR)	2023
Irish Conference on Artificial Intelligence and Cognitive Science (AICS)	2021

Journal Reviewer

Philosophy & Technology	2024
Decision Support Systems	2023
Expert Systems	2022

PUBLICATIONS

Journal Articles

- **Greta Warren**, Ruth M.J. Byrne, and Mark T. Keane. Categorical and continuous features in counterfactual explanations of ai systems. *ACM Trans. Interact. Intell. Syst.*, June 2024. [doi:10.1145/3673907](https://doi.org/10.1145/3673907)

- Catherine N. Moran, David P. McGovern, **Greta Warren**, Rónán Ó Grálaigh, Joanne P. M. Kenney, Alan Smeaton, and Paul M. Dockree. Young and restless, old and focused: Age-differences in mind-wandering frequency and phenomenology. *Psychology and aging*, 36(2):252, 2021. doi: [10.1037/pag0000526](https://doi.org/10.1037/pag0000526)

Conference Proceedings

- **Greta Warren**, Eoin Delaney, Christophe Guéret, and Mark T. Keane. Explaining multiple instances counterfactually: user tests of group-counterfactuals for xai. In Juan A. Recio-Garcia, Mauricio G. Orozco-del Castillo, and Derek Bridge, editors, *Case-Based Reasoning Research and Development*, pages 206–222, Cham, 2024. Springer Nature Switzerland. doi: [10.1007/978-3-031-63646-2_14](https://doi.org/10.1007/978-3-031-63646-2_14)
- **Greta Warren**, Ruth M. J. Byrne, and Mark T. Keane. Categorical and continuous features in counterfactual explanations of AI systems. In *Proceedings of the 28th International Conference on Intelligent User Interfaces*, IUI '23, pages 171–187, New York, NY, USA, 2023. Association for Computing Machinery. doi: [10.1145/3581641.3584090](https://doi.org/10.1145/3581641.3584090)
- **Greta Warren**, Barry Smyth, and Mark T. Keane. Better counterfactuals, ones people can understand: Psychologically-plausible case-based counterfactuals using categorical features for explainable AI (XAI). In Mark T. Keane and Nirmalie Wiratunga, editors, *Case-Based Reasoning Research and Development: 30th International Conference, ICCBR 2022, Nancy, France, September 12–15, 2022, Proceedings*, pages 63–78, Berlin, Heidelberg, 2022. Springer-Verlag. doi: [10.1007/978-3-031-14923-8_5](https://doi.org/10.1007/978-3-031-14923-8_5)

Workshops and Symposia

- **Greta Warren**, Mark T. Keane, Christophe Guéret, and Eoin Delaney. Explaining groups of instances counterfactually for XAI: A use case, algorithm and user study for group-counterfactuals. *IJCAI-23 Workshop on Explainable Artificial Intelligence (XAI)*, 2023. doi: [10.48550/arXiv.2303.09297](https://doi.org/10.48550/arXiv.2303.09297)
- **Greta Warren**, Mark T. Keane, and Ruth M. J. Byrne. Features of explainability: How users understand counterfactual and causal explanations for categorical and continuous features in XAI. In *IJCAI-ECAI'22 Workshop: Cognitive Aspects of Knowledge Representation*, 2022. doi: [10.48550/arXiv.2204.10152](https://doi.org/10.48550/arXiv.2204.10152)
- Jörg Cassens, Lorenz Habenicht, Julian Blohm, Rebekah Wegener, Joanna Korman, Sangeet Khemlani, Giorgio Gronchi, Ruth M. J. Byrne, **Greta Warren**, Molly S. Quinn, and Mark T. Keane. Explanation in human thinking. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*, 2021. URL: <https://escholarship.org/content/qt9k6291nk/qt9k6291nk.pdf>

Invited Talks

- **Greta Warren** (December, 2022). Simplicity and complexity in explanations of diagnoses and predictions. *Reasoning and Imagination Lab, Trinity College Dublin*.
- **Greta Warren** and Eoin Delaney (November, 2022). Group counterfactual explanations for AI predictions. *Accenture Labs at The Dock, Dublin*.
- **Greta Warren** (November, 2021). Counterfactual and causal explanations in eXplainable AI (XAI). *Reasoning and Imagination Lab, Trinity College Dublin*.