

Madeleine Waller

King's College London

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Education

King's College London

London, UK

PHD IN COMPUTER SCIENCE

- Thesis: Assessing and addressing individual fairness in algorithmic decision-making systems
- Supervisors: Dr. Oana Cocarascu and Dr. Odinaldo Rodrigues
- Funded by: UKRI Centre for Doctoral Training in Safe and Trusted Artificial Intelligence

King's College London

London, UK

BSC IN COMPUTER SCIENCE (FIRST CLASS HONOURS)

- Thesis: Does Alexa respond to users differently based on their personal characteristics?

Professional Experience

University of Tübingen

POSTDOCTORAL RESEARCHER

May 2026–

Welsh Parliament

UKRI POLICY INTERNSHIP

May 2025–July 2025

Department of Informatics, King's College London

GRADUATE TEACHING ASSISTANT

Jan 2022–Aug 2025

King's Institute of Artificial Intelligence

AFFILIATE, AI PROJECTS OFFICER

Oct 2023–Dec 2025

Self-employed, Bermotech

AI FOR KIDS AND COMPUTER SCIENCE GCSE TUTOR

Sept 2020–Sept 2025

The Alan Turing Institute

ENRICHMENT STUDENT

Oct 2023–Mar 2024

Iridium Technology (now part of BigHand)

BUSINESS INTELLIGENCE INTERN

Jan 2019–Nov 2019

Publications

Waller, M, Rodrigues, O., Cocarascu, O. 2025. Individual Consistency eXplorer (ICX): An Interactive Dashboard for the Exploration of Individual Fairness. *Demo-track of European Conference on Artificial Intelligence (ECAI)*, Oct 2025.

Waller, M, Rodrigues, O., Cocarascu, O. 2025. Beyond Consistency: Nuanced Metrics for Individual Fairness. *ACM Conference on Fairness, Accountability, and Transparency (FAcT)*, June 2025.

Wu, W., Nwachukwu, M., Ghoshal, A., **Waller, M.**, Brandao, M. 2025. Dimensions of Diversity in Robot Datasets: Literature Analysis and Recommendations. *4th Diversity, Equity, & Inclusion in HRI Workshop at HRI 2025*, March 2025.

Waller, M, Rodrigues, O., Lee, M.S.A., Cocarascu, O. 2024. Bias Mitigation Methods: Applicability, Legality, and Recommendations. *Journal of Artificial Intelligence Research*, Dec 2024.

Leslie, D., Rincón, C., Briggs, M., Perini, A.M., Jayadeva, S., Borda, A., Bennett, S., Burr, C., Aitken, M., Mahomed, S., Wong, J., **Waller, M**, Fischer, C. 2024. AI Explainability in Practice. *The Alan Turing Institute*, Aug 2024.

Waller, M, Rodrigues, O., Cocarascu, O. 2024. An Argumentation-based Approach for Representing Individual Fairness. *AAAI Conference on Artificial Intelligence*, Feb 2024.

Jorgensen, M., **Waller, M**, Cocarascu, O., Criado, N., Rodrigues, O., Such, J., Black, E. 2023. Investigating the Legality of Bias Mitigation Methods in the UK. *IEEE Technology and Society Magazine*, Dec 2023.

Waller, M, Rodrigues, O., Cocarascu, O. 2023. Recommendations for Bias Mitigation Methods: Applicability and Legality. *AEQUITAS Workshop on Fairness and Bias in AI, ECAI*, July 2023.

Projects

- 2023–2025 **Legality of Technical Explainable AI Methods**, European Lighthouse on Secure and Safe AI (ELSA), University of Birmingham & The Alan Turing Institute
- 2023–2024 **Accessible Images of AI, Turing Commons**, The Alan Turing Institute
- June 2022 **Automated Verification of Crowdsourced Image Annotations**, The National Archives, King's College London, Imperial College London

Fellowships, & Grants

- 2023–2025 **Future of Music Project (£5000)**, King's Institute of Artificial Intelligence, STAI CDT
- Feb 2024 **Student Scholarship (US\$1250)**, AAAI Conference on Artificial Intelligence
- 2023–2024 **Women in Informatics Travel Scholarship (£2500)**, King's College London
- 2023–2024 **Enrichment Award (£472.50/month, £1000 RTSG)**, The Alan Turing Institute

Presentations

- May 2026 **Invited Talk**, LawML Colloquium, University of Tübingen
- Nov 2025 **Invited Talk**, AI & Law Conference, University of Tübingen
- Sept 2025 **Panel Presentation**, Oceans of Knowledge Conference 2025
- June 2025 **Paper Presentation**, ACM Conference on Fairness, Accountability, and Transparency (FAccT)
- March 2025 **Invited Talk**, Middlesex Computer Science Colloquium
- Oct 2024 **Poster**, AEQUITAS Workshop on Fairness and Bias, European Conference on AI
- June 2024 **Poster**, ACM WomENCourage Conference
- Feb 2024 **Paper & Poster Presentation**, AAAI Conference on Artificial Intelligence
- July 2023 **Paper Presentation**, AEQUITAS Workshop on Fairness and Bias in AI, European Conference on AI
- Sept 2023 **Poster**, ACM WomENCourage Conference
- Nov 2023 **Poster**, The Alan Turing Institute CDT Conference
- Nov 2022 **Poster (Prize Winner)**, Safe and Trustworthy AI Workshop

Leadership

- 2023–2025 **Online Handbook of Argumentation for AI (OHAAI)**, Journal Chair
- 2022–2025 **Safe and Trusted AI Centre for Doctoral Training**, Social Secretary
- Sept 2025 **OHAAI Student Presentation Workshop @ ECA 2025**, Workshop Co-organiser
- June 2025 **Computational Argumentation for Fair and Explainable AI Decision-making @ FAccT**, Tutorial Co-organiser
- June 2025 **DREXA Workshop @ Computing Conference 2025**, Workshop Co-organiser
- Sept 2024 **OHAAI Student Presentation Workshop @ COMMA 2024**, Workshop Organiser
- Oct 2024 **An Interactive Exploration of Argumentation Tutorial, ECAI 2024**, Tutorial Co-organiser
- 2023–2024 **Connecting using Computational Argumentation, ACM WomENCourage Conference**, Tutorial Co-organiser

Teaching Experience

- 2024–2025 **Problems 2a: Technology and Ethics, London Interdisciplinary School**, Guest Lecturer
- 2021–2025 **Machine Learning, King's College London**, Teaching Assistant
- 2021–2025 **Computer Systems, King's College London**, Teaching Assistant
- 2020–2025 **AI & ML for Kids**, Course Organiser & Primary Tutor

Community Engagement

PUBLIC ENGAGEMENT

- 2023–2025 **Organiser & Performer**, Future of Music Project, Festival of Artificial Intelligence
- Feb 2025 **Organiser & Chair**, Regulating AI: In Conversation with Lord Clement-Jones
- Nov 2023 **Presenter**, AI Ethics: Ctrl-Z Doesn't Undo Discrimination Presentation at Alleyn's School
- June 2023 **Volunteer**, Hello World Hack, Imperial College London
- April 2022 **Presenter & Panelist**, King's College London Women in Informatics Conference
- June 2018 **Panelist**, Encouraging Women into STEM Panel, Festival of Education

VOLUNTEERING & CAMPAIGNING

- 2024–2025 **Treasurer**, Liberal Democrats in Science, Technology, Engineering, Mathematics & Medicine (LibSTEMM)
- June 2024 **Volunteer**, ACM Conference on Fairness, Accountability, and Transparency (FAccT), Rio de Janeiro, Brazil
- Feb 2024 **Volunteer**, Association for the Advancement of Artificial Intelligence (AAAI) Conference, Vancouver, Canada

PEER REVIEW

- AAAI Conference on Artificial Intelligence 2026
- International Conference on Learning Representations (ICLR) 2025
- Conference on Neural Information Processing Systems (NeurIPS) 2025
- Online Handbook of Argumentation for AI PhD Journal (OHAAI) 2023, 2024, 2025
- Conference on Principles of Knowledge Representation and Reasoning (KR) 2023
- Conference on Computational Models of Argument (COMMA) 2022