# Jessica Woodgate

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Computer Science Ph.D. student at the University of Bristol. Passionate about the impact of technology on society and driving the future of responsible innovation, I believe interdisciplinary and collaborative work is the best way to make meaningful contributions to this area. My research interests lie in the domain of AI ethics and multi-agent systems, specifically applying normative ethics principles to decision-making in sociotechnical systems (STS).

#### Education

#### Ph.D. Computer Science

University of Bristol, Supervised by Dr. Nirav Ajmeri and Dr. Paul Marshall

# M.Sc. Computer Science (Conversion): Distinction

University of Bristol, Supervised by Dr. Nirav Ajmeri

# B.A. (Hons) Philosophy: Upper Second-Class Honours 68.5%

University of Sheffield

Bristol, UK November 2022 – February 2027

Bristol, UK September 2020 – January 2022

> Sheffield, UK September 2015 – July 2018

# Academic Experience

#### **Research Assistant, University of Bristol**

- Advanced directions for the application of normative ethical principles to multiple user social dilemmas
- Conducted a critical analysis identifying frontier gaps in implementing ethical principles for responsible AI
- Presented and publicised accepted Blue Sky paper at AAMAS 2022

# Publications

- Jessica Woodgate. *Ethical Decision-Making in Multi-Agent Systems*. (Accepted/In press). Proc. of 24th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) Doctoral Consortium, 2025, p. 1–3.
- Jessica Woodgate and Nirav Ajmeri. *Combining Normative Ethics Principles to Learn Prosocial Behaviour*. (Accepted/In press). Proc. of 24th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), 2025, p. 1–3.
- Jessica Woodgate, Paul Marshall, and Nirav Ajmeri. *Operationalising Rawlsian Ethics for Fairness in Norm-Learning Agents*. Proc. of 39th Annual AAAI Conference on Artificial Intelligence (AAAI), 2025, p. 26382–26390.
- Jessica Woodgate and Nirav Ajmeri. *Macro Ethics Principles for Responsible AI Systems: Taxonomy and Future Directions.* ACM Computing Surveys (CSUR), 2024, pages 1–37.
- Jessica Woodgate. *Ethical Principles for Reasoning about Value Preferences*. Proc. of 6th International Conference on Artificial Intelligence, Ethics and Society (AIES), Student Track, 2023, pages 972–974.
- Jessica Woodgate and Nirav Ajmeri. *Macro Ethics for Governing Equitable Sociotechnical Systems*. Proc. of 21st International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Blue Sky Idea Track, 2022, pages 1824–1828.

# ACADEMIC PRESENTATIONS

#### **Invited Talks**

- January 2025. Generated Science: How AI is Impacting Academic Publishing. Copenhagen University Library, Online.
- November 2024. Generated Science: How AI is Impacting Academic Publishing. Knowledge Exchange Experts. Jisc, Bristol.

#### **Conference Papers**

- February 2025. *Operationalising Rawlsian Ethics for Fairness in Norm-Learning Agents*. 39th Annual AAAI Conference on Artificial Intelligence (AAAI). Philadelphia.
- August 2023. *Ethical Principles for Reasoning about Value Preferences*. 6th International Conference on Artificial Intelligence, Ethics and Society (AIES), Student Track. Montreal.
- May 2022. *Macro Ethics for Governing Equitable Sociotechnical Systems*. 21st International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Blue Sky Idea Track. Auckland, Online.

January 2022 – November 2022

#### **Research Presentations**

<ul> <li>May 2025. Combining Normative Ethics Principles to Learn Prosocial Behaviour. Interactive AI Lunch and Learn Seminal Series. The University of Bristol.</li> <li>February 2025. Operationalising Rawlsian Ethics for Fairness in Norm-Learning Agents. Interactive AI Lunch and Learn Seminar Series. The University of Bristol.</li> <li>January 2025. Normative Ethics for Prosocial Behaviour. Citizen-Centric AI Systems Workshop. The Royal Society, London.</li> <li>November 2023. Paradigm Agents for a Just Society. Citizen-Centric AI Systems Workshop. The Royal Society, London.</li> <li>September 2023. Paradigm Agents for a Just Society. Interactive AI Lunch and Learn Seminars. The University of Bristol.</li> <li>PROFESSIONAL SERVICE</li> </ul>	
• Advance workshop development, supervise student projects, and investigate sustaina	able robotics practices
Organiser, Citizen-Centric AI Systems (CCAIS) Seminars	July 2023 – ongoing
• Facilitated 16 seminars, liaising with 18 speakers and 8 organising academics to disse	minate AI research
Organiser, Data Ethics Club (DEC)	January 2023 – ongoing
• Nurture community engagement, authored over 35 blog posts summarising frontier	data ethics topics
PC Member, C-MAS workshop, AAMAS	March 2025
Student Volunteer, AAAI	February 2025
PC Member, C-MAS workshop, AAMAS	March 2024
Consultant, AI Ethics for Journalists, The Thompson Foundation	April 2023
• Advised development of course on AI ethics for journalists, providing critical feedbac	ck on course content and structure
PC Member, AAMAS Blue Sky Track	December 2022
Student Volunteer, IJCAI	August 2022
Awards	
Successfully secured AAMAS student scholarship 1200 USD	May 2025
<ul> <li>Attained AAAI scholarship and volunteer award 1200 USD</li> </ul>	February 2025
<ul> <li>Achieved AIES student program funding award 1300 USD</li> </ul>	August 2023
• Acquired Society for Applied Philosophy (SAP) research trip award 750 GBP	August 2023
<ul> <li>Procured IJCAI travel grant, 350 USD</li> </ul>	August 2022
Teaching Experience	
Postgraduate Project Co-Supervisor	Bristol, UK
Bristol Robotics Laboratory, University of Bristol	<i>May</i> 2025 – <i>September</i> 2025
• Overseeing Robotics M.Sc. Summer Project harnessing cutting-edge computer vision of strawberry flowers for artificial pollination in vertical farming	technologies to detect the presence
Teaching Assistant	Bristol, UK
Department of Computer Science, University of Bristol	September 2022 – December 2022
<ul> <li>Coordinated sessions and led student support in the Introduction to Computer Science (Conversion) M.Sc</li> </ul>	ence module for Computer Science
Interests and Achievements	
• Developed and tested multiple simulation environments suitable for evaluating response	onsible AI
• Effective fundraiser attaining over £600 for Cancer Research in March 2017 by runnin	g the Manchester Marathon

• Drive collaborative work by engaging with communities across the world through environmental conservation outreach programs