

# JESSICA WOODGATE

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Bristol, UK ☎07548166774

Computer Science Ph.D. student at the University of Bristol. Passionate about the impact of technology on society, 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

<b>University of Bristol, UK</b> <i>Ph.D. in Computer Science</i>	<i>November 2022 – February 2027</i>
<b>University of Bristol, UK</b> <i>M.Sc. Computer Science (Conversion): Distinction</i>	<i>September 2020 – January 2022</i>
<b>University of Sheffield, UK</b> <i>B.A. (Hons) Philosophy: Upper Second-Class Honours 68.5%</i>	<i>September 2015 – July 2018</i>

## ACADEMIC PROJECTS (ALL AVAILABLE ON GITHUB)

<b>Developer, RAWL·E</b>	<i>February 2025</i>
<ul style="list-style-type: none"><li>Built a codebase facilitating the creation of agents that promote ethical norms by operationalising Rawlsian ethics to balance societal well-being with individual goals</li><li>Evaluations in simulated harvesting scenarios comparing societies of RAWL·Eagents with societies of agents that do not implement Rawlsian ethics</li></ul>	
<b>SCRUM Leader, Database Lead, Back-End Co-Developer, Left Unread (Module: Software Engineering and Group Project)</b>	<i>February 2021 – May 2021</i>
<ul style="list-style-type: none"><li>SCRUM team leader ensuring regular effective meetings, sprint goals set and met, all team members were supported, user impact was addressed, and ethical framework was adhered to</li><li>Led database development and co-developed back-end development including building the API, and ensuring other back-end developers stayed on track</li></ul>	
<b>Developer, STAG (Module: Object-Oriented Programming with Java)</b>	<i>June 2021</i>
<ul style="list-style-type: none"><li>Constructed a general-purpose socket-server game-engine for text adventure games in Java</li></ul>	
<b>Developer, DB (Module: Object-Oriented Programming with Java)</b>	<i>March 2021</i>
<ul style="list-style-type: none"><li>Assembled a relational database server from scratch in Java</li></ul>	

## PROFESSIONAL SERVICE

<b>Organiser, Protecting the Earth with Autonomous Systems (PROTEAS)</b>	<i>November 2024 – ongoing</i>
Help with organising workshops, project supervision, and investigating sustainability considerations in education	
<b>Organiser, Citizen-Centric AI Systems (CCAIS) Seminars</b>	<i>July 2023 – ongoing</i>
Facilitate seminars including moderating sessions, liaising with speakers, and website maintenance	
<b>Organiser, Data Ethics Club</b>	<i>January 2023 – ongoing</i>
Moderate seminars and author blog posts summarising reading related to data ethics and seminar discussions	
<b>PC Member, C-MAS workshop, AAMAS</b>	<i>March 2025</i>
<b>PC Member, C-MAS workshop, AAMAS</b>	<i>March 2024</i>
<b>Consultant, AI Ethics for Journalists, The Thompson Foundation</b>	<i>April 2023</i>
Advised development of course on AI ethics for journalists. Provided critical feedback on course content and structure.	
<b>PC Member, AAMAS Blue Sky Track</b>	<i>December 2022</i>
<b>Student Volunteer, IJCAI</b>	<i>August 2022</i>

## ACADEMIC EXPERIENCE

### University of Bristol, UK

Summer Project Co-Supervisor

June 2025 – September 2025

Robotics M.Sc. Summer Project

### University of Bristol, UK

Teaching Assistant

September 2022 – December 2022

Introduction to Computer Science, Computer Science (Conversion) M.Sc.

### University of Bristol, UK

Research Assistant

January 2022 – November 2022

Published a Blue Sky paper from the findings of my M.Sc. dissertation suggesting research directions for the application of normative ethical principles to multiple user social dilemmas

### University of Bristol, UK

M.Sc. Computer Science (Conversion)

September 2020 – January 2022

Conducted a critical analysis of normative ethics in computer science and application to multiple-user social dilemmas

## 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), 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*. (Accepted/In press). Proc. of 39th Annual AAAI Conference on Artificial Intelligence (AAAI), 2025, p. 1-9.

Jessica Woodgate and Nirav Ajmeri. *Macro Ethics Principles for Responsible AI Systems: Taxonomy and Future Directions*. ACM Computing Surveys (CSUR), 2024, pages 1-39.

Jessica Woodgate. *Ethical Principles for Reasoning about Value Preferences*. Proc. of 6th International Conference on Artificial Intelligence, Ethics and Society (AIES), Student Track, Montreal, 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, Auckland, 2022, pages 1824-1828.

## ACADEMIC PRESENTATIONS

### Invited Talks

- May 2025. Data Visualisation: Objective Viewpoints From Subjective Standpoints. Interdisciplinary PeaceTech Network (IPTN), Online.
- 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 Expert Meeting. 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.

## AWARDS

### Funding to attend AAAI

February 2025

- Awarded 1200 USD from AAAI to participate and present my work at AAAI annual conference

### Funding to attend AIES

August 2025

- Awarded 1300 USD from AIES and 750 GBP from Society for Applied Philosophy to participate and present at AIES