

# Guy Aglionby

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## EDUCATION

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### University of Cambridge

2018 – 2023 (expected)

Ph.D. Computer Science

- Supervisor: Prof. Simone Teufel.
- Thesis title: Interpretable common sense reasoning using knowledge graphs.
- Developed neural network architecture for retrieving trustworthy explanations.
- Created knowledge graph schema that structures information more consistently than existing schema.
- Devised counterfactual annotation methodology for identifying key facts in an explanation.
- Homerton College Charter Graduate Award.

### University of Cambridge

2017 – 2018

M.Phil. Advanced Computer Science

Distinction

- Supervisors: Dr. Helen Yannakoudakis, Dr. Jean Maillard.
- Thesis title: Modelling polysemy in distributional semantic models.
- Computer Laboratory scholarship (one of eight awarded).
- Homerton College Master's Prize for distinguished M.Phil. achievement.

### University of Bristol

2014 – 2017

B.Sc. Computer Science

1st Class

## EMPLOYMENT

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### Cambridge Spark

Principal Teaching Fellow (contract)

2022 – present

Teaching Fellow (contract)

2021–2022

- Developing and delivering teaching material; mentoring apprentices' individual projects.
- Topics range from introduction to programming to advanced natural language processing.

### Amazon

Autumn 2020

Applied Science Intern

- Developed a new method for knowledge extraction to grow Alexa's knowledge graph.

### Expedia

Summer 2017

Software Developer Intern

- Evaluated requirements for, planned, and delivered a tool to facilitate communication between marketing and development groups. Responsible for briefing two new developers on the project.

### Amazon

Summer 2016

Software Development Engineer Intern

- Improved visualisations in performance measurement tooling after identifying usability problems, requiring efficient manipulation of large amounts of structured data.

### Netcraft

Summer 2015

Internet Services Developer Intern

- Developed customisable company watch face for Android Wear devices given to prize winners.

## PROFESSIONAL ACTIVITIES

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- **Technical co-chair:** Conference for Truth and Trust Online (TTO) 2020.
- **Program committee:** ACL '23; EMNLP '22; ACL Rolling Review '22; TTO '22; AKBC '22, '21; RePL4NLP '21, '20.
- **NLP Group seminar organiser,** University of Cambridge, 2019 – 2021.
- **Conference volunteer:** ACL 2020 (recognised as significant contributor); ICLR 2020.
- **Open-source contributor:** Zotero, NetworkX.

## PUBLICATIONS

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- **Faithful Knowledge Graph Explanations in Commonsense Question Answering.** Guy Aglionby, Simone Teufel. *In Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022, Abu Dhabi, UAE.*
- **Identifying relevant common sense information in knowledge graphs.** Guy Aglionby, Simone Teufel. *In Proceedings of the First Workshop on Commonsense Representation and Reasoning (CSRR), 2022, Dublin, Ireland.*
- **Using machine learning to create a repository of judgments concerning a new practice area: a case study in animal protection law.** Joe Watson, Guy Aglionby, Samuel March. *Artificial Intelligence and Law (2022).*
- **CAMsterdam at SemEval-2019 Task 6: Neural and graph-based feature extraction for the identification of offensive tweets.** Guy Aglionby, Christopher Davis, Pushkar Mishra, Andrew Caines, Helen Yannakoudakis, Marek Rei, Ekaterina Shutova, Paula Buttery. *In Proceedings of the International Workshop on Semantic Evaluation 2019 (SemEval 2019), Minneapolis, USA.*

## TALKS & PRESENTATIONS

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- **Collecting Knowledge Graph Explanations for Commonsense QA via Counterfactual Annotation**  
*ETH Zürich, November 2022.*
- **Meaningful Relations in a Commonsense Knowledge Graph**  
*Cambridge Language Sciences Annual Symposium, November 2020.*
- **Which Laws Should Go? Helping Social Scientists Analyse Public Opinion with NLP**  
*PyData Sofia, June 2020.*
- **Interpretable Methods for Automatic Textual Understanding**  
*Homerton College Research Supper Series, May 2019.*
- **Modelling Polysemy in Distributional Semantic Models**  
*Cambridge Language Sciences Annual Symposium, November 2018.*

## UNIVERSITY TEACHING

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### University of Cambridge

- Research Project Supervisor: Pembroke College Summer Research Programme '21.
- Lead Demonstrator: Machine Learning and Real-world Data '20. Natural Language Processing '19, '18.
- Demonstrator: Scientific Computing '20, '19. Data Science: Principles and Practice '19. Machine Learning and Real-world Data '19. Sutton Trust Summer School '19. Overview of Natural Language Processing (Master's) '18.
- Supervisor (small group teaching): Machine Learning and Real-world Data '21, '20, '19. Scientific Computing '21.

## VOLUNTEER ROLES

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- **President**, University of Cambridge Kickboxing Society, 2019 – 2020.
- **Events officer**, Homerton College graduate student union, 2018 – 2019.
- **President**, University of Bristol Taekwondo Society, 2016 – 2017.

## TECHNICAL SKILLS

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<b>Main experience</b>	Python, Java, Javascript, SQL, Git, HTML, CSS
<b>Limited experience</b>	C, C#, Bash
<b>Python libraries</b>	PyTorch, Transformers, Pandas, Scikit-Learn, NetworkX, NumPy, Keras