# Lun Ai

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#### Research Interests

- Machine Learning Comprehensibility, eXplainable AI
- Inductive Logic Programming, Program Induction, Program Synthesis

## **Academic Employment**

• Research Assistant, Imperial College London, UK	2020 - Now
$\bullet$ Research Support Officer, Imperial College London, UK	2020
• Research Intern, Tsinghua University, China	2017

#### PhD Research

• Effects of Machine-Learned Logic Theories on Human Comprehension in Machine-Human Teaching

### Education

• PhD Computing Science, Imperial College London, UK	2019 - Now
• MEng Computer Science (Artificial Intelligence), Imperial College London, UK	2015 - 2019

## Grants and Funding

- BBSRC AI-4-EB (80k)
- EU Horizon TAILOR (70k)
- EPSRC HLC (40k)

### Organisation

• Organising Committee of the 2nd International Joint Conference on Learning & Reasoning (IJCLR) 2022

### Program Committee/Reviewer

• CogSci	2023
• Machine Learning Journal	2023
• IJCLR	2022

## Invited Talks/Presentations

• AAAI Spring Symposium on Computational Approaches to Scientific Discovery	2023
• AI-4-EB AI and Engineering Biology Consortium	2023
• Imperial College London Explainable AI Seminar	2022
• International Joint Conference on Learning & Reasoning	2021
$\bullet$ Trustworthy AI Through The Integration Of Learning, Optimisation & Reasoning Conference	2021
• Dagstuhl Approaches and Applications of Inductive Programming Seminar	2021
Awards and Honours	

2021

2015

# • Entry Scholarship, Imperial College London

Research Collaborators

• Prof. Ute Schmid, Cognitive System Group, University of Bamberg, Germany

• The Best Poster, Imperial College Poster Competition

• Prof. Geoff Baldwin, Department of Life Science, Imperial College London, UK

# **Industrial Employment**

• Software Engineer, Schlumberger Technology Center, Norway	2018
• Software Engineer, LV8Sports, UK	2017-2018
• Software Engineer Intern, Yiwei Tech, China	2016

#### **Publications**

#### **Pre-prints**

- <u>L. Ai</u>, S.-S. Liang, W.-Z. Dai, L. Hallett, S. H. Muggleton, G. S. Baldwin. <u>Human comprehensible active learning of genome-scale metabolic networks</u>. AAAI 2023 Spring Symposium on Computational Approaches to Scientific Discovery, 2023.
- <u>L. Ai</u>, J. Langer, S. H. Muggleton and U. Schmid. <u>Explanatory machine learning for sequential human teaching</u>. arXiv, 2022 (accepted by Machine Learning Journal).

#### Journals

• <u>L. Ai</u>, S. H. Muggleton, C. Hocquette, M. Gromowski and U. Schmid. <u>Beneficial and harmful explanatory</u> machine learning. Machine Learning, 2021.

#### Technical Skills

- Programming Languages: Prolog, Python, Java, Javascript, HTML, C++, C, C#
- Software Engineering: Logic Programming, Machine Learning Frameworks, Git, Cloud Development, Android Development, Web Applications, Databases and Networking
- Technical Toolkits: OpenCV, Caffe, Pytorch, Tensorflow, Matlab, GAE & GCP Cloud development, Docker