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

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.

Organisation

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

Program Committee/Reviewer

• ICLR	2023
• 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
• Trustworthy AI Through The Integration Of Learning, Optimisation & Reasoning Conference	2021
• Dagstuhl Approaches and Applications of Inductive Programming Seminar	2021

Grants and Funding

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

Awards and Honours

• The Best Poster, Imperial College Poster Competition	2021
• Entry Scholarship, Imperial College London	2015

Research Collaborators

- Prof. Ute Schmid, Cognitive System Group, University of Bamberg, Germany
- Prof. Geoff Baldwin, Department of Life Sciences, 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

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