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
- 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 2022,2023

Invited Talks/Presentations

- AAAI Spring Symposium on Computational Approaches to Scientific Discovery 2023
- Imperial College London Explainable AI Seminar 2022
- Dagstuhl Approaches and Applications of Inductive Programming Seminar 2021

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 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

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

Journals

- L. Ai, S. H. Muggleton, C. Hocquette, M. Gromowski and U. Schmid. Beneficial and harmful explanatory 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