Yichao Liang

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EDUCATION

University of Oxford — Oct 2021 – Sep 2022
MSc in Advanced Computer Science

The University of Edinburgh — Sep 2017 – Jun 2021
BSc (Hons) in Artificial Intelligence, Class Prize for Top Performance

I took taking a range of exciting, more challenging, graduate-level courses: Machine Learning and Pattern Recognition • Quantum Computing • Computational Cognitive Neuroscience • Natural Language Understanding, Generation and Machine Translation • Advanced Vision • Automatic Speech Recognition • Reinforcement Learning • Data Mining and Exploration • Speech Processing

RESEARCH

Honours Project (undergrad thesis project) — Sep 2020 – May 2021
Advisor/Examiner: Christopher G. Lucas, Amos Storkey, The University of Edinburgh
- Algorithms for learning to induce programs. Combining regularization, meta-learning, and seq2seq models with program induction.

Research Intern — May 2020 – Sep 2020
Advisor: Robert B. Fisher, The University of Edinburgh
- Learning to infer 3D-shape programs with a neurosymbolic, differentiable program renderer.

Research Intern — May 2020 – Sep 2020
Advisor: Shay B. Cohen, The University of Edinburgh
- Abstract Meaning Representation semantic parsing with contextual meaning representations and transitional parser.
- Unsupervised syntactic parsing with contextual word embeddings and spectral algorithms

Research Intern — May 2019 – Sep. 2019
Advisor: Vaishak Belle, The University of Edinburgh
- Structural, reinforcement learning in Probabilistic Sentential Decision Diagrams.

TEACHING

Tutor - Introductory Applied Machine Learning — Sep. 2020 – Dec 2020
Organizer: Chris Williams, The University of Edinburgh — Edinburgh, UK
- We teach the principled application of machine learning techniques to extracting information from data.

Tutor - Informatics 2B - Learning — Jan. 2020 – May 2020
Organizer: Hiroshi Shimodaira, The University of Edinburgh — Edinburgh, UK
- We teach the foundation of the mathematical and computational methods for learning from data.

Tutor - Introduction to Algorithms and Data Structures — Sep. 2019 – Dec 2019
Organizer: John Longley, The University of Edinburgh — Edinburgh, UK
- We teach algorithms and data structure, both formally and practically, that underlie all areas of computation.

PROJECTS

Team Lead — May 2019 – Sep. 2019
Sprout.ed, The University of Edinburgh — Edinburgh, UK
- Oversaw Sprout.ed's product strategy including design, engineering, manufacturing and is responsible for all the 3-D modeling works.
- Managed the team by organizing team meetings, delegating tasks, quality controlling the reports and keeping track of the team's progress.

AI Software Engineer — Sep 2018 – May 2019
Edinburgh University Formula Student Society — Edinburgh, UK
- Worked on building deep reinforcement learning models for autonomous racing cars, and computer vision systems for perception, which eventually won the first place on IMechE's FS-AI competition.