Matthew T. Jackson

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Education

University of Oxford – DPhil in Engineering Science

2021-Sept 2025

Member of the AIMS CDT.

Supervised by Jakob Foerster and Shimon Whiteson.

University College London – MSc in Machine Learning

2020-2021

Distinction, 87% - Dean's List.

Supervised by Tim Rocktäschel and Edward Grefenstette.

University of Cambridge – BA in Computer Science

2017-2020

First-Class Honors, 86% – Senior Scholar, ranked 2/99 in cohort.

Highly commended (top 5) dissertation.

Supervised by Pietro Liò.

Experience

Amazon – Software Engineering Intern

2020

Worked in the Alexa Knowledge Group, developing Java software to rank the relevance of natural language answers to user questions. Implemented features running on all Alexa Q&A queries.

Arm – Software Engineering Intern

Worked in the Machine Learning Software Group, developing Arm's neural network inference engines in C++. Reviewed deep learning research and added support for new architectures. A selection of contributions may be found on the ArmNN GitHub.

Cubica Technology (acquired) — Software Engineering Intern

2018

[arXiv]

Developed a Python script to identify and label reoccurring identities across large-scale video databases. Implemented and trained random forest models for head pose estimation, in addition to a tracking algorithm for video summarization.

Publications

Policy-Guided Diffusion

NeurIPS 2023

Matthew T. Jackson, Michael T. Matthews, Cong Lu, Jakob N. Foerster, Shimon Whiteson Under review

Discovering Temporally-Aware Reinforcement Learning Algorithms

Matthew T. Jackson*, Chris Lu*, Louis Kirsch, Robert T. Lange, Shimon Whiteson, Jakob N. Foerster Under review

Discovering General Reinforcement Learning Algorithms with Adversarial Environment Design

Matthew T. Jackson, Minqi Jiang, Jack Parker-Holder, Risto Vuorio, Chris Lu, Gregory Farquhar, Shimon Whiteson, Jakob N. Foerster

Hypernetworks for Meta-Reinforcement Learning

Jake Beck, Matthew T. Jackson, Risto Vuorio, Shimon Whiteson CoRL 2022

[arXiv]

Multi-Modal Fusion by Meta-Initialization

Matthew T. Jackson*, Shreshth Malik*, Michael T. Matthews, Yousuf Mohamed-Ahmed

FARSCOPE Robotics Workshop 2022; Best Poster Award [arXiv]

Academia

Tutor

Reinforcement Learning (PhD course), Machine Learning (Master's course)

Reviewer

ICLR, ACML, NeurIPS workshops (DeepRL, ALOE, Diffusion Models), Frontiers in Robotics and Al

Software

Languages

Frameworks

Python, C++, Java, OCaml, HTML/CSS, Bash

JAX, PyTorch, Hugo