

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 2019
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
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
Matthew T. Jackson, Michael T. Matthews, Cong Lu, Jakob N. Foerster, Shimon Whiteson
Work in progress – NeurIPS 2023 Workshop on Robot Learning
- Discovering Temporally-Aware Reinforcement Learning Algorithms
Matthew T. Jackson*, Chris Lu*, Louis Kirsch, Robert T. Lange, Shimon Whiteson, Jakob N. Foerster
Under review at ICLR 2024 – NeurIPS 2023 Agent Learning in Open-Endedness Workshop
- 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
NeurIPS 2023 [arXiv]
- 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 AI

Software

- | Languages | Frameworks |
|--|--------------------|
| Python, C++, Java, OCaml, HTML/CSS, Bash | JAX, PyTorch, Hugo |