

Matthew Jackson

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Education

UNIVERSITY OF OXFORD

DPHIL IN AUTONOMOUS,
INTELLIGENT MACHINES AND
SYSTEMS
📅 2022 – 2026 📍 Oxford, UK
Working with Shimon Whiteson and
Jakob Foerster.

UCL

MSC IN MACHINE LEARNING
📅 Sep 2021 📍 London, UK
Distinction, 87%.

UNIVERSITY OF CAMBRIDGE

BA IN COMPUTER SCIENCE
📅 Jul 2020 📍 Cambridge, UK
First-Class Honours, 86%.
Ranked 2/99 in cohort.

Courses

GRADUATE

Approximate Inference
Autonomous Robotics
Deep Learning
Multi-Agent AI
Natural Language Processing
Reinforcement Learning
Supervised Learning
Unsupervised Learning

UNDERGRADUATE

Algorithms
Computer Vision
Graphics
Information Theory
Mobile and Sensor Systems
Networking

Skills

LANGUAGES

Python • C/C++ • Java • HTML/CSS •
SQL • OCaml • Bash

TOOLS

PyTorch • TensorFlow • JAX • SQL • Git
• Microsoft Office • \LaTeX

Links

🔗 **EmptyJackson**
in **Matthew-T-Jackson**
🐦 **JacksonMattT**

Experience

AMAZON | SOFTWARE ENGINEER INTERN

📅 Jun 2020 – Sep 2020 📍 Cambridge, UK
• Worked in the Alexa Knowledge group.
• Developed software to rank the relevance of natural language
answers, running on all Alexa Q&A queries.

ARM | MACHINE LEARNING INTERN

📅 Jun 2019 – Sep 2019 📍 Cambridge, UK
• Worked in the Machine Learning Software Group on Arm's neural
network inference engines.
• Reviewed deep learning research and added support for new
operations, whilst optimizing their performance on Arm hardware.

CUBICA TECHNOLOGY | COMPUTER VISION INTERN

📅 Jul 2018 – Sep 2018 📍 Woking, UK
• Developed a script to identify and label reoccurring identities across
a database of security footage.

Research

HYPERNETWORKS FOR META-REINFORCEMENT LEARNING

J. A. Beck, **M. T. Jackson**, R. Vuorio, S. Whiteson
Under review at the Conference on Robotic Learning (CoRL), 2022
Proposed a meta-RL agent architecture utilising hypernetworks
with a novel meta-initialization method, achieving SOTA on a range of
meta-RL benchmarks.

MULTIMODAL FUSION BY META-INITIALISATION

M. T. Jackson*, S. A. Malik*, M. T. Matthews, Y. Mohamed-Ahmed
*FARSCOPE Robotics Conference, 2022; **Best Poster Award***
Proposed an gradient-based meta-learning method for
multimodal few-shot learning, using hypernetworks conditioned on
auxiliary task information.

SELF-SUPERVISED META-REINFORCEMENT LEARNING

M. T. Jackson, R. Kirk, T. Rocktäschel, E. Grefenstette
MSc thesis; explored the application of self-supervised
representation learning to the Alchemy meta-RL benchmark.

REAL-TIME VIDEO SUPER-RESOLUTION

M. T. Jackson, J. Zhu, P. Liò
BA thesis; researched approaches to single-image and video
super-resolution, aiming to maximise super-resolution performance
whilst remaining computationally efficient.

Honors

SENIOR SCHOLAR

GONVILLE & CAIUS COLLEGE, UNIVERSITY OF CAMBRIDGE

HIGHLY-COMMENDED PART II DISSERTATION

UNIVERSITY OF CAMBRIDGE

DUKE OF EDINBURGH AWARD

GOLD, SILVER AND BRONZE LEVELS