Michael Matthews

mtmatthews.com michael.tryfan.matthews@gmail.com

Education

September 2020 - September 2021

University College London - *MSc Machine Learning* - **Python, PyTorch**

- Distinction (84%)
- Awarded a place on the Dean's List (approx. top 5% of students)
- Thesis titled 'A new method and benchmark for skill transfer in reinforcement learning' supervised by Tim Rocktäschel, Edward Grefenstette and Mikayel Samvelyan.
- After graduation I continued the work from my thesis in my spare time, resulting in a first author conference publication at CoLLAs and a workshop paper at ICLR (see publications section).

September 2017 - July 2020

University of Cambridge - *BA Computer Science* - **Python, Java, Poly/ML, C, C++, GLSL, SQL, Prolog**

- Year 3 - Class 2.1 (75.3%) *[Grade boundary for Class 1 was 76.8%]*
- Year 2 - Class 2.1 (69%)
- Year 1 - Class 1 (70%)

September 2010 - July 2017

City of Norwich School - *Student* - **Python, Java**

- A Levels - Maths (A*), Further Maths (A*), Computer Science (A*) and Physics (A*)
- NetCraft award for top 50 in Computer Science in the country.

Experience

October 2021- PRESENT

VivaCity, London - *Machine Learning Researcher (Reinforcement Learning team)* - **Python, PyTorch**

- Experiment with applying methods from recent publications to our reinforcement learning (RL) system for traffic control.
- Deploy the system to the real world, investigate and solve sim2real issues.
- Keep up to date with the RL and machine learning literature, share knowledge in a biweekly reading group.

June 2019 - September 2019

G-Research, London - *Software Engineering Intern* - **C#, Angular, TypeScript, SQL**

- Developed and maintained internal software for facilitating trading.

June 2018 - September 2018

PlayFusion, Cambridge - *Software Engineering Intern* - **C#, Python, TensorFlow**

- Developed an RL agent for purposes of balancing the company's digital trading card game.

Publications

M. Matthews, M. Samvelyan, J. Parker-Holder, E. Grefenstette, T. Rocktäschel, "Hierarchical Kickstarting for Skill Transfer in Reinforcement Learning" in Conference on Lifelong Learning Agents 2022, https://arxiv.org/abs/2207.11584

M. Matthews, M. Samvelyan, J. Parker-Holder, E. Grefenstette, T. Rocktäschel, "SkillHack: A Benchmark for Skill Transfer in Open-Ended Reinforcement Learning", Workshop on Agent Learning in Open-Endedness, ICLR 2022, https://openreview.net/forum?id=rHSVHmDWI-9

M. Jackson, S. Malik, **M.Matthews**, Y. Mohamed-Ahmed, "Multi-modal fusion by meta-initialization", arXiv preprint, ,https://arxiv.org/abs/2210.04843