Akbir Khan

akbir.dev

Research Interests

Multi-Agent Reinforcement Learning, Natural Language Processing, AI Safety

Education

2021-2024	Ph.D. in Foundational Artificial Intelligence, University College London Advised by Ed Grefenstette & Tim Rocktäschel
2017-2018	MPhil in Advanced Computer Science, *with distinction*, University of Cambridge
2013-2017	MSci in Mathematics with Physics, *with 1st class honours*, University College London
2015-2016	Exchange Student in Mathematics Specialist, University of Toronto

Experience

2021-2023	Senior Applied Researcher at Tractable AI. Highlights include unlocking £8 million in revenue by developing OCR ingestion pipeline and continual learning process for model improvements.
2017-2020	Chief Research Officer at Spherical Defence, where we raised a $2 million seed round, developed Seq2seq models for web application firewalls
2016	Software Engineer Internship at Deutsche Bank, focus on front-end development
2015	Research Intern at the Quantum Optics and Laser Group, Imperial College London

Recent Publications

MAESTRO: Open-Ended Environment Design for Multi-Agent Reinforcement Learning - M Samvelyan, **A Khan**, M Dennis, M Jiang, J Parker-Holder, JN Foerster, R Raileanu, T Rocktäschel. In *The 10th International Conference on Learning Representations (ICLR)*

Multi-dimensional Affect in Poetry Dataset: Acquisition, Annotation and Baseline Results - **A Khan**, J Hopkins, & H Gunes. In *The 9th International Conference on Affective Computing and Intelligent Interaction*

Considering Race as a Problem of Transfer Learning - **A Khan**, M Mahmoud. In *Proceedings of the 2019 IEEE Winter Applications of Computer Vision Workshop: Demographic Variations in Performance of Biometric Algorithms* (oral)

Technical Projects

Deep Equilibrium Models, a Haiku implementation of the NeurIPS 2019 paper, an implicit-depth differentiable architecture that simulates an infinitely deep network

Bad Flamingo, a gamified data collection of sketches for adversarial machine learning. Awarded 1st Prize at the University of Cambridge Ternary Hackathon