

# 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, <i>with distinction</i> , University of Cambridge
2013-2017	MSci. in Mathematics with Physics, <i>with 1<sup>st</sup> class honours</i> , University College London

## Work Experience

2021-	Senior Applied Researcher at <a href="#">Tractable AI</a> . Highlights include unlocking £8 Million in revenue by developing OCR ingestion pipeline and developing continual learning process for model improvements
2018-2021	Chief Research Officer at <a href="#">Spherical Defence</a> . Raised a \$2 million seed round and developed a ML-based web application firewall service. Led a team of research engineers to develop seq2seq models for anomaly detection over network traffic
2017	Software Engineer Internship at <a href="#">Deutsche Bank</a> , focus on front-end development
2016	Two months as an Undergraduate Research Fellow at <a href="#">Quantum Optics and Laser Group</a> at Imperial College London

## Publications

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

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

## Recent 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 1<sup>st</sup> Prize at the University of Cambridge Ternary Hackathon

## Technical Skills

Python [PyTorch, JAX (*contributor*), Scikit-learn, Pandas, Haiku], Docker, GoLang