

Akbir Khan

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Interests	Representation Learning, Reinforcement Learning, AI Safety and Fairness	
Education	Sidney Sussex College, University of Cambridge, UK	2017-2018
	MPhil in Advanced Computer Science	Pass with Distinction
	Advised by Prof. Hatice Gunes and Jack Hopkins	
	University College London, UK	2013-2017
	MSci in Mathematics and Physics	1 st Class Honours
	Advised by Prof. Stephen Bramwell	
	University of Toronto, Canada	2015-2016
	Visiting Student in Mathematics and Computer Science	GPA: 3.3/4.0
Publications	Reconsidering Race as a Problem of Transfer Learning	
	A.Khan, M.Mahmoud	
	Workshop on Demographic Variations in Performance of Biometric Algorithms, 2019 IEEE Winter Conference of Applications on Computer Vision, Oral ArXiv: 1812.04751	
	Latent Racial Bias - Evaluating Racism in Police Stop-and-Searches	
	A.Khan	
	ArXiv: 1807.05 (STILL NEEDS TO BE CORRECTED)	
Experience	Spherical Defence Labs	Jun. 2018 - Present
	Lead Research Scientist	
	Organise a team of 5 research engineers, directing research of intellectual property Designed novel unsupervised deep learning architecture to model tree structured data Co-authored patent to identify anomalous web traffic (Number: 049653.00003)	
	Deutsche Bank	Jun. 2018 - Aug. 2018
	Software Engineer/Business Analyst	
	Created user interface for internal search engine of golden-source market and meta data Implemented MIFIDii regulation (€100m budget) at cross-divisional and global scale Designed project milestones and tracking metrics, to be used by all (300) projects	
	Imperial College London	Jun. 2014 - Aug. 2014
	Junior Research Assistant	
	Worked with Prof. David Jennings in the Quantum Optics and Laser Group. Applied information theory to validate restrictions within quantum communication protocols	
Side Projects	Bad Flamingo [github.com/jayelm/bad-flamingo]	
	Gamified data collection of Adversarial examples of sketched images	
	Awarded 1 st Prize at the Cambridge Ternary Hackathon	
	Bag of Poses [github.com/am-khan/bag-of-poses]	
	A machine learning model for emotion detection from the body language of crowds	
Skills	Languages: Python [TensorFlow, scikit-learn, NumPy, PyTorch, Keras], Lua [Torch] Graduate Courses: Probabilistic Machine Learning, Computer Vision, Deep Learning for Natural Language Processing, Group Rings and Fields (UofT), Computation and Simulation Methods (UCL)	
Awards	Provost Excellence Scholarship	
Extra Curriculum Activities	Charity Work: DebateMate - mentoring children through debating in areas of poverty	
	University Debating: Finalist at Warwick 2016 and Harvard 2018 inter-varsity	
	Leadership: Passed the Air Cadet Leadership Course at RAF station Cramwell Sports: Member of the Sidney Sussex mens rowing 2 nd team	