

Akbir Khan

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Interests	Representation Learning, Robustness, AI Safety and Fairness	
Education	Sidney Sussex College, University of Cambridge, UK	2017-2018
	<i>MPhil</i> in Advanced Computer Science	Pass with Distinction
	Advised by Prof. Hatice Gunes and Jack Hopkins	
	University College London, UK	2013-2017
	<i>MSci</i> in Mathematics and Physics	1 st Class Honours
	Advised by Prof. Stephen Bramwell	
	University of Toronto, Canada	2015-2016
	<i>Visiting Student</i> in Mathematics and Computer Science	GPA: 3.3/4.0
Publications	Considering Race as a Problem of Transfer Learning	
	<i>A.Khan, M.Mahmoud</i> <i>2019 IEEE Winter Applications of Computer Vision Workshops (WACVW)</i> , Oral DOI: 10.1109/WACVW.2019.00022	
	Latent Racial Bias - Evaluating Racism in Police Stop-and-Searches	
	<i>A.Khan</i> amkhan.me/LBS.pdf	
Experience	Spherical Defence Labs	Jun. 2018 - Present
	<i>Lead Research Engineer</i> 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
	<i>Software Engineer/Business Analyst</i> 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
	<i>Junior Research Assistant</i> 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	