

# Akbir Khan

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<b>Interests</b>	Representation Learning, Robustness, AI Safety and Fairness	
<b>Education</b>	<b>Sidney Sussex College, University of Cambridge, UK</b>	2017-2018
	<i>MPhil</i> in Advanced Computer Science	Pass with Distinction
	Advised by Prof. Hatice Gunes and Jack Hopkins	
	<b>University College London, UK</b>	2013-2017
	<i>MSci</i> in Mathematics and Physics	1 <sup>st</sup> Class Honours
	Advised by Prof. Stephen Bramwell	
	<b>University of Toronto, Canada</b>	2015-2016
	<i>Visiting Student</i> in Mathematics and Computer Science	GPA: 3.3/4.0
<b>Publications</b>	<b>Reconsidering Race as a Problem of Transfer Learning</b>	
	<i>A.Khan, M.Mahmoud</i> <i>2019 IEEE Winter Applications of Computer Vision Workshops (WACVW), Oral</i> DOI: 10.1109/WACVW.2019.00022	
	<b>Latent Racial Bias - Evaluating Racism in Police Stop-and-Searches</b>	
	<i>A.Khan</i> <a href="http://amkhan.me/LBS.pdf">amkhan.me/LBS.pdf</a>	
<b>Experience</b>	<b>Spherical Defence Labs</b>	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)	
	<b>Deutsche Bank</b>	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	
	<b>Imperial College London</b>	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	
<b>Side Projects</b>	<b>Bad Flamingo</b> [github.com/jayelm/bad-flamingo] Gamified data collection of Adversarial examples of sketched images Awarded 1 <sup>st</sup> Prize at the Cambridge Ternary Hackathon	
	<b>Bag of Poses</b> [github.com/am-khan/bag-of-poses] A machine learning model for emotion detection from the body language of crowds	
<b>Skills</b>	<b>Languages:</b> Python [TensorFlow, scikit-learn, NumPy, PyTorch, Keras], Lua [Torch] <b>Graduate Courses:</b> Probabilistic Machine Learning, Computer Vision, Deep Learning for Natural Language Processing, Group Rings and Fields (UofT), Computation and Simulation Methods (UCL)	
<b>Awards</b>	Provost Excellence Scholarship	
<b>Extra Curriculum Activities</b>	<b>Charity Work:</b> DebateMate - mentoring children through debating in areas of poverty	
	<b>University Debating:</b> Finalist at Warwick 2016 and Harvard 2018 inter-varsity	
	<b>Leadership:</b> Passed the Air Cadet Leadership Course at RAF station Cramwell	
	<b>Sports:</b> Member of the Sidney Sussex mens rowing 2 <sup>nd</sup> team	