

Akbir Khan

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Education	Sidney Sussex College, University of Cambridge, UK <i>MPhil</i> in Advanced Computer Science Advised by Prof. Hatice Gunes and Jack Hopkins (Natural Language Processing and Affective Computing)	2017-2018 Distinction
	University College London, UK <i>MSci</i> in Mathematics and Physics Advised by Prof. Stephen Bramwell (Thermodynamics and Analytic Magnetic Systems)	2013-2017 1 st Class Honours
	University of Toronto, Canada <i>Visiting Student</i> in Mathematics and Computer Science	2015-2016 GPA: 3.3/4.0
Research	Considering Race as a Problem of Transfer Learning <i>A.Khan, M.Mahmoud</i> <i>2019 IEEE Winter Applications of Computer Vision Workshops (WACVW), Oral</i> DOI: 10.1109/WACVW.2019.00022	
	Probabilistic Latent Bias - Evaluating Racism in Police Stop-and-Searches <i>A.Khan</i> amkhan.me/LBS.pdf	
Technical Skills	Languages: Python [PyTorch, JAX (<i>Contributor</i>), Scikit-learn, Numpy] Graduate Courses: Probabilistic ML, Computer Vision, Entanglement Physics, Deep Learning for Natural Language Processing, Quantum Computation and Communication	
Experience	Spherical Defence Labs <i>Lead Research Engineer</i> Manage a team of (+5) engineers, researching/implementing intellectual property Joined as employee #1, raising a \$2 million pre-seed round and securing patents Designed novel deep learning architecture to model tree structured data Co-authored patent to identify anomalous web traffic (Number: 049653.00003)	Jun. 2017 - Present
	Deutsche Bank <i>Software Engineer/Business Analyst</i> Created user interface for internal search engine of golden-source market and metadata Implemented MIFIDii regulation (€100m budget) at cross-divisional and global scale Designed project milestones and tracking metrics, to be used by all (300) projects	Jun. 2016 - Aug. 2016
	Imperial College London <i>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	Jun. 2014 - Aug. 2014
Projects	Bad Flamingo [github.com/jayelm/bad-flamingo] Gamified data collection of adversarial machine learning examples of sketched images Awarded 1 st Prize at the Cambridge Ternary Hackathon	
	Bag of Poses [github.com/am-khan/bag-of-poses] Deep learning model for emotion detection from the body language of crowds	
Awards	Provost Excellence Scholarship - UCL Berkley Exhibition Scholar - Grammar School at Leeds	
Extra Curricula	University Debating: Finalist at Warwick 2016 and Yale 2018 inter-varsity Charity: DebateMate - mentoring children through debating in areas of poverty Sports: Member of the Sidney Sussex College mens rowing 2 nd team	