Akbir Khan

email: akbir.94@gmail.com   website: am-khan.me

Education	**Sidney Sussex College, University of Cambridge**, UK	2017-2018
	MPhil in Advanced Computer Science	Distinction
	Advised by Prof. Hatice Gunes and Jack Hopkins	
	(Natural Language Processing and Affective Computing)	
	University College London, UK	2013-2017
	MSci in Mathematics and Physics	1st Class Honours
	Advised by Prof. Stephen Bramwell	
	(Thermodynamics and Analytic Magnetic Systems)	
	University of Toronto, Canada	2015-2016
	Visiting Student in Mathematics and Computer Science	GPA: 3.3/4.0

Research

Considering Race as a Problem of Transfer Learning
A.Khan, M.Mahmoud
2019 IEEE Winter Applications of Computer Vision Workshops (WACVW), **Oral**
DOI: 10.1109/WACVW.2019.00022

Probabilistic Latent Bias - Evaluating Racism in Police Stop-and-Searches
A.Khan
amkhan.me/LBS.pdf

Technical Skills

Languages: Python [PyTorch, JAX (*Contributor*), 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   Jun. 2017 - Present
Lead Research Engineer
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)

Deutsche Bank   Jun. 2016 - Aug. 2016
Software Engineer/Business Analyst
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

Imperial College London   Jun. 2014 - Aug. 2014
Research Assistant
Worked with Prof. David Jennings in the Quantum Optics and Laser Group. Applied information theory to validate restrictions within quantum communication protocols

Projects

Bad Flamingo [github.com/jayelm/bad-flamingo]
Gamified data collection of adversarial machine learning examples of sketched images
Awarded 1stPrize 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 2nd team