Imran Ahmed

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EDUCATION AND SKILLS

University of Cambridge, Gonville & Caius College — 2018 (Expected)

Candidate for BA and Masters in Information & Computer Engineering '18
1st Year Classification: ***First Class****, 2nd Year Classification:* ***First Class****, MIT GPA:* ***5.0/5.0***
Master's Project: Using Machine Learning to diagnose lung diseases based on sounds from stethoscopes
Relevant Courses: Computer Vision, Probabilistic Machine Learning, Practical Optimisation

Massachusetts Institute of Technology — 2016 – 2017

Cambridge-MIT Exchange student concentrating in Computer Science
Relevant Courses: Introduction to Algorithms, Machine Learning for Healthcare, Computer Systems Engineering

Skills: OpenCV, Tensorflow/Keras, Caffe, Scikit-Learn, Python, C++, Swift, HTML/CSS/JS

EXPERIENCE

Vivacity Labs, London: *(Computer Vision and Machine Learning Start-up) – Product Manager Intern* — June '17 – Sept. '17

- Managed the design and development of a mobile transport app ("MotionMap") to commercialise the world's largest city-wide smart-sensor deployment in Milton Keynes, UK. Expected uptake is ~50,000 users.
- Led the creation of internal tools to reduce time spent manually annotating facilities within cities by more than five-fold.
- Facilitated the installation of our sensor network by writing algorithms to help lower installation costs by > £50,000.

Interactive Robotics Lab, MIT: *(Robotics Research Group) – Undergraduate Researcher* — Sept. '16 – June '17

- Developed an astronaut detection system for the International Space Station. This formed part of a NASA-led research project at MIT for an autonomous robot ("Astrobee") which will be deployed on the ISS in 2018.
- Improved an open-source detection system and implemented a multi-processing module for parallelised classification.

Vivacity Labs, London: *(Computer Vision and Machine Learning Start-up) – Software Developer Intern* — June '16 – Aug. '16

- Upgraded an outdated machine learning toolkit to give a 300% increase in training speed.
- Designed an algorithm to optimise a neural network by using Computer Vision to automatically identify incorrect output for further retraining and fine-tuning. This automated what was previously a time-consuming manual task.

RECENT EXTRACURRICULAR PROJECTS

Hackbridge.io: *https://hackbridge.io* — Jul. '17 – Present

- Launched a student organisation to foster an undergraduate 'maker' environment at Cambridge University by organising weekly events to encourage students to work together on innovative side-projects/research in their spare time.

Pure Interaction — Sept. '17 – Present

- Created software to allow users to browse and interact with the web with just their gaze, facial expression and voice.
- Our team won the Microsoft Prize and also placed in the top 10 from over 200 competing teams at HackMIT. We are rebuilding and improving our work with better ML/CV techniques as part of a submission to the Microsoft Imagine Cup.

SpatialRL — Jan. '17

- Created a novel platform to facilitate the training of Reinforcement-Learning agents using Unity and SpatialOS.
- Our team was awarded the SpatialOS Prize at Hack Cambridge by Improbable (a cloud-based simulation company).

Educational Video Compression: *http://ylgh.github.io* — Oct. '16 – Dec. '16

- Created an algorithm to compress educational videos by 100x to reduce the data cost of accessing educational material.
- Our team received a $2500 prize at the Facebook Global Hackathon Finals. We productised and donated our work to DotLearn, an MIT-based education startup.

Cambridge University Eco Racing, Cambridge UK: *(Solar Vehicle Development) – Business Manager* — Oct. '15 – June '16

- Led a 10-person team to raise funds for this student-run organisation with an operating budget in excess of £1m.

AWARDS AND ACHIEVEMENTS

2017 – Runners-Up, RAEng Future of Engineering Prize: A national prize for engineers who display entrepreneurial talent.

2015 & 2016 – Scholarships to Caius College, Cambridge: Awarded scholarships for my performance in my examinations.

2016 – RAEng Engineering Leaders Scholarship: Awarded a £5,000 scholarship for demonstrating strong leadership potential.

2014 – ARM Prize: Awarded team prize for the best robot in a competition for 1st year Cambridge Engineers.