Imran Ahmed

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EDUCATION

University of Cambridge, Gonville & Caius College 2014 – 2018
Candidate for BA and Masters in Information & Computer Engineering
***First Year Classification**: First Class, **Second Year Classification:** First Class, **MIT GPA:** 5.0/5.0*
Master's Project: Creating a diagnostic tool to identify lung diseases from stethoscope sounds using Machine Learning

Massachusetts Institute of Technology 2016 – 2017
Selected as one of twenty students for the Cambridge-MIT Exchange Programme (concentrating in Computer Science)

EXPERIENCE

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

- Led the design and development of a novel 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.
- Developed internal web-tools to reduce time spent manually annotating facilities within cities by more than five-fold.
- Facilitated the installation of our sensor network by creating 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 as part of a research project at MIT.
- 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 – Aug. '16

- Upgraded an outdated machine learning toolkit to give a 300% increase in model training speed.
- Designed an algorithm to optimise a neural network by using computer vision to process the model's predictions and automatically identifying incorrect/uncertain output for further retraining and fine-tuning.

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.
- Overhauled the team's former sponsorship structure and implemented a formalised strategy to facilitate fundraising.
- Sourced funds to employ a team of full-time students which allowed us to improve the quality of our vehicle design.

RECENT EXTRACURRICULAR PROJECTS

Hackbridge.io: *Student Innovation & Making Group; https://hackbridge.io* Jul. '17 – Present

- Founded a student organisation to foster an undergraduate 'maker' environment at Cambridge University by leading the organisation of weekly events to encourage students to work together on innovative side-projects in their spare time.
- Working to both raise funds for student resources and invite industry-leading speakers to speak at Cambridge.

Pure Interaction: *HackMIT 2017 Top 10 finalist; Microsoft Prize Winner* Sept. '17 – Present

- Created software to allow users to browse and interact with the web with just their gaze, facial expression and voice.
- We are improving our work with better ML/CV techniques as part of a submission to the Microsoft Imagine Cup.

SpatialRL: *Improbable Prize Winner, Hack Cambridge 2017* Jan. '17

- Created a novel platform to facilitate the training of Reinforcement-Learning agents using Unity and SpatialOS.
- We were able to demonstrate that our platform could produce a significant speed-up in model training. Our team was awarded a prize at Hack Cambridge by Improbable (the simulation company that built SpatialOS).

Facebook Global Hackathon Finals: *Prize Winner, Facebook Global Hackathon Finals; http://ylgh.github.io* Nov. '16

- Created an algorithm to compress educational videos by 100x to reduce the data cost of accessing online education.
- We productised and donated our algorithm to DotLearn, an MIT-based education startup working on a similar problem.

AWARDS AND ACHIEVEMENTS

2017 – RAEng Future of Engineering Prize (Runner-Up): A £5,000 national award for engineers who display entrepreneurial talent.

2017 – MIT Sandbox Innovation Fund: Awarded a $5,000 grant to support the development of a ML-based side-project.

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.