Daniel Williams

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Education

University College London
2019 – 2020

MSc Machine Learning (In Progress)
Supervised Learning, Graphical Models, Machine Vision, Deep Learning, Reinforcement Learning, Natural Language Processing, Information Retrieval and Data Mining, Affective Computing.

Imperial College London
2015 – 2019

MEng Electrical and Electronic Engineering (First-Class Honors)
Mathematics (Calculus, Linear Algebra, Statistics, Optimization), Analog & Digital Electronics, Embedded Systems, Signal Processing, Machine Learning, Systems Identification, Predictive Control.

Work Experience

March – September 2020
Supervised by EmoTech, London

Industrial Dissertation Project
- Aspect-based Sentiment Analysis using Albert-based architecture
- Exploiting adversarial examples to improve classification accuracy
- Model development in PyTorch, production to use TensorFlow

May – September 2018
RISC Lab
KAUST, Saudi Arabia

Visiting Research Assistant
- Investigated cooperative payload transport (CPT) using aerial drones
- Developed PID-based control scheme for communication-free CPT
- Simulated system behavior using ROS, Gazebo and MAVROS (interface for the Pixhawk onboard flight controller)

July – September 2017
Robot Intelligence Lab
Imperial College, London

Undergraduate Research Assistant
- Designed, constructed and operated a rig for motor control tests
- Customized firmware to implement robotic control of actuators
- Procured components for first prototype of the robot *SLIDER*.

December 2016 – April 2018
TuringLab, London

Coding Instructor
- Supporting a class of 40 students coding in Python, JS and HTML

Skills

- **Technology.** Python, Julia, MATLAB, C++. PyTorch. ROS, Gazebo.
- **Fabrication.** Technical Drawing, CAD. Laser Cutting, 3D Printing.
- **Languages.** English (C2), Spanish, French (B2), Russian (A2), Japanese (A1).

Achievements

- UK Runners-Up Team ('AirNode Monitor'), Switch-Up Challenge 2016, Cisco UK
- Student-Staff Liaison Officer (1st – 4th Year), Electrical Engineering, Imperial College London
- President's Ambassador 2015 – 2019, International Outreach, Imperial College London

Interests

- **Automation:** NLP, Terrestrial and Aerial Robotics, Model Predictive Control.
- **Martial Arts:** Captain and Secretary, Shorinji Kempo Dojo at Imperial College, 2016 – 2019.