

Adam Hartwell

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Education

University of Sheffield

2011 - 2018

PhD, Machine Learning and Biomechanics

- EPSRC research scholarship

MEng, Computer Systems Engineering

- First class: highest overall grade

Employment

2018 - Present: **Research Associate, Rolls Royce University Technology Centre (Sheffield)**

- Developed embedded software in C/C++ for a Bluetooth and Wi-Fi hybrid sensor network that runs both on bare-metal and within an RTOS environment.
- Designed and deployed machine learning models suitable for anomaly detection in real-time on-wing under Linux. System is currently in the flight-testing phase.
- Developed deep-learning models for the accurate prediction of gas turbine signals using Python.
- Produced back-end tools for data-wrangling, modelling, and analytics which are used across the research group.
- Data-mined 1000s of flights worth of data to support work on multiple projects.

2012 - 2018: **Multiple Roles, University of Sheffield**

- Taught on Mathematics, Biomechanics, Computer Science, System Analysis, and Machine Learning courses.
- Supported software activities.
 - Automated distribution and deployment of deep learning environments.
 - Automated deployment of data to USB drives.
 - Developed supporting software for labs and research projects.
- Researched and implemented advanced error correction and cryptographic security for a bespoke embedded wireless network.
- Implemented an advanced control architecture for use within an embedded environment.
- Represented the University as an Ambassador.
- Part-time and contractual work fitted around studies.

2011 - 2012: **Software and Electronics Technician, Owlstone Medical**

Holiday employment. Produced a web interface for a parts database and designed then built numerous electronic circuits to support daily activities of Electronics division.

Other Relevant Experience

- Experience programming in C/C++, Java, MATLAB, Python, Assembly, HTML/PHP/CSS, Javascript and MySQL via work activities, competitions, and side-projects.
- Leadership roles: running a university club, representing student interests to department during university, Sergeant in the Air Training Corps, and instructing various outdoor pursuits via the Ely Scheme.
- Competed in the FIRST Robotics competition twice, including work on hardware and software for entered robots.