

# BEN STEEL

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## EDUCATION

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### University of Bristol

Sep 15 - Jun 19

M.Eng. in Computer Science and Electronics

Current Grade: First Class (86%)

Awards: Alumni Academic Achievement Award for top 3 performance in Faculty of Engineering in first year

### Exchange Year at McGill University

Aug 17 - May 18

GPA: 3.52

## EXPERIENCE

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### Biosignal Interaction and Personhood Technology Lab, McGill

May 18 - Aug 18

*Android Developer*

*Montreal, Canada*

- Lead developer on Biomusic Android app, creates biosignal derived music for improved patient/carer relations.
- Worked with contracting backend developer to add cloud database storage functionality using MySQL, and offline storage using the Realm android library to the app
- Created data visualisation GUI for biosignal data using Android Studio.
- Prototyped signal processing algorithms in MATLAB and Python using machine learning techniques, and implemented in app.

### Visual Systems Lab, McGill

Sep 17 - Apr 18

*Research Assistant*

*Montreal, Canada*

- Used MATLAB for data visualisation to reveal underlying trends in neurological data.
- Used local SGE computing cluster system to improve processing times due to size of datasets (order of TBs).
- Became familiar with Bash to move and manipulate datasets, and gained competence in using Unix based operating systems.

### Control Techniques Ltd.

Jun 16 - Aug 16

*Summer Intern*

*Newtown, Wales*

- Learned how to effectively layout and track PCBs for electrical drives, using industry level software.
- Also worked in safety team, debugging an ARM microprocessor via JTAG.

## PROJECTS

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### Embedded Gesture Recognition using Neural Networks

Feb 18 - Mar 18

- Implemented neural network and back propagation algorithms on embedded system using LabView.
- Created motion dataset and explored NN solution space to achieve high accuracy digit gesture recognition.

### Face Detection and Age Classification using OpenCV

Dec 17

- Used Viola-Jones algorithm to detect faces and extract features from photos, using OpenCV in Python.
- Experimented with machine learning techniques to classify age from extracted features, using scikit-learn.

### Peak Detection using an FPGA

Jan 17 - Feb 17

- Used VHDL to design and implement peak detection and extraction on serial data, on an FPGA.

## SKILLS

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### Computer Languages Software

Python, Java, MATLAB, C/C++, VHDL, Bash  
Android Studio, Eclipse, Visual Studio, Ubuntu, Git, LaTeX, LabView