Freddie Bawden

Creative Problem Solver

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Education

BSc Computer Science (2016-2020), The University of Edinburgh
Current Grade: First
Notable Courses: Distributed Systems, Extreme Computing, Software Testing, System Design Project

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Relevant Experience

Engineering Intern
Skyscanner
(June - Sept 2019)

- Worked as part of a DevOps team responsible for the frontpage and website infrastructure working with **React** and **NodeJS**
- Independently carried out various performance enhancements such as creating a CSS deferral system usable across the website **improving page load by 500ms**
- Worked with designers and product managers cross business to improve user experience by redesigning web components used on the frontpage by millions of users daily.
- Extended **DroneCI** deployment pipeline metrics to monitor new and old versions and measure the relative failure rate to improve reliability when rolling out.

QA Engineer
HYP-ED (Sept 2020 - present)

- Contributor to 200 person project that researches builds and tests futuristic transport solutions; namely a Hyperloop Pod
- Building a **C++** testing framework using **GTest** and **TravisCI** to allow teams to test their software independently
- Communicated across teams to gather feedback and taught other members how to effectively utilise tools and test effectively using **TTD**

Personal Projects

Mandelbrot Maps

- Currently building browser based Mandelbrot fractal viewer for final year university project; allows users to “explore” the fractal and learn more about its structure
- Involves taking a legacy Java Applet and updating it to run on modern browsers while maintaining native performance
- Uses **Rust** and **WebAssembly** to handle the high computation load of rendering the fractal; also uses web workers to allow for parallel computation

Brilliant Online Buying (BOB)

- Built autonomous shopping system making shopping more convenient by letting users order groceries remotely, having a robot collect them ready for pick up later
- Worked in a group of eight over several months, achieving a final grade of 78%
- Added networking capabilities to the robot and produced a system connect and orchestrate separate robot controllers wirelessly using **Python**
- Helped create a **Node JS** Rest API to store customer data, plan movement and encode instructions for the robot

Deep Slumber

- Used several **IoT devices** such as **ARM Mbed chip** and **FitBit** to help the user optimise their sleep environment
- Worked on preprocessing the FitBit data and the **Flask API** which communicate with different sections of the project
- Achieved **1st place** in ARM challenge at HackTheBurgh 2018

Leadership and Activities

Extra Curricular Coding

- **Regularly attend computing events** such as hackathons including *Hack Cambridge* and *Hack The North* and coding challenges to learn about new technologies and develop skills outside of university.

Swimming Teacher and Lifeguard
McLaren Leisure
(2014-2017)

- Responsibilities included for **planning and leading** swimming classes as well as **communicating** with other teachers and parents regularly about swimmers’ progress
- Required **working calmly and efficiently** within a team even when under pressure