William Woodacre

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Work Experience

Apr 2018-Sep 2018 — 6 Month Industry Placement - Flextrade, London

Worked as a software engineer on the FlexNOW product team - a lightweight, cloud based EMS. During my placement I worked on various tasks across the whole product stack - including the C# WPF client and the main C# webserver. My largest tasks involved transitioning the WCF API to a Restful HTTP API and various UX overhauls.

Jul 2017-Sep 2017 — Research Placement - Large Scale Distributed Systems Group, Imperial College London

Worked as a group member on a team working on projects with Intel SGX technology - allowing processes to run secure from the kernel in an enclave. Contributed to a paper setting out to compartmentalise a process within an enclave using compiler and runtime techniques (using C, C++ and Python).

Jul 2015-Aug 2015 — Summer Intern - Renishaw PLC, Wotton-Under-Edge

Developed a system to update the firmware running on an ARM micro-controller over a USB connection. Improved the existing C# client, as well as programming embedded C on the micro-controller.

Jul 2014-Aug 2014 — Summer Intern - Renishaw PLC, Wotton-Under-Edge

Developed a PCB board capable of generating varying waveforms to be used for testing other designs. The board could be connected to an FPGA which could configure the waveform to be produced. As an extension of my project, I wrote a VHDL module for the FPGA to talk to my PCB over an SPI interface.

Education

Grad. 2019 — Computing MEng
Imperial College London
Year 3 overall grade: 1^{st}
Year 2 overall grade: 1^{st}
Year 1 overall grade: 1^{st}

Jul 2015 — A Levels and GCSES
Hardenhuish School
A levels - Maths, Further Maths, Physics,
EPQ: A*A*A*A | STEP - STEP I: Grade 2
AS levels - Computing, Critical Thinking: AA
GCSES - 9 A*'s, 1 A

Scholarships and Certificates

2017 — Best WebApps Project
2016 — Best Computing Topics Project
2013 - 2015 — Arkwright Engineering Scholarship

Skills

C#, C, Java, C++, Js, Agile, Linux, SQL, Azure, LaTeX

References

Academic tutor: Alessio Lomuscio
a.lomuscio@imperial.ac.uk

Projects

Oct 2017 — Etheroscope - A Ethereum smart contract viewer

Developed a web based smart contract viewer, using Node JS, allowing users who know nothing about Ethereum to view the state of a smart contract over time. Done in collaboration with the startup Alice.si that is using smart contracts to deliver more transparency to the charity sector. See the website and the microsoft blog post about it for more details.

Jun 2017 — Pamoja - A competitive coding platform

Developed a website, using Node JS, where users of any experience level can build on their coding skills by coding competitively against other users using Python. The website emphasises scoring on the code quality, not just correctness, which is an important skill for programmers to learn for industry.

Jun 2016 — Bare Metal Raspberry Pi Pacman

Developed a Pac-Man game in C without an OS on a Raspberry Pi in a group of four. The challenges of this project included setting up and managing a framebuffer with the GPU and programming the ghost's AI.

Mar 2015 — Parallel Travelling Salesman Problem Solver

As part of my EPQ A level project, I developed a program to solve the travelling salesman problem over a cluster of four Raspberry Pis using C and the open MPI library.