Harry Waugh

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Profile

A driven, ambitious and rounded final year student at the University of Bristol, armed with a wealth of technical knowledge, supported by a firm mathematical base and a passion for technology.

Education

UNDERGRADUATE COMPUTER SCIENCE | 2016 - PRESENT | UNIVERSITY OF BRISTOL

- Current Average Mark (January 2019) 68%
- Symbols, Patterns, and Signals 83% - (2nd Year Unit) Processing and Modelling Digital Data
- Software Product Engineering 72% - (2nd Year Unit) Software Project for Outside Client and Development Lifecycle
- Machine Learning 89%(Current Avg.) - (3rd Unit) Formulated Models for Computers to Learn from Data
- Intro. to High Performance Computing 68% - (3rd Year Unit) Serial and Parallel Optimization Techniques

A2/AS LEVELS (A* - B) | 2015 - 2016 | RICHARD HUISH COLLEGE, TAUNTON

- A2 Mathematics (A*), A2 Further Mathematics (A), A2 Computing (B), AS Physics (B)

11 GCSE (A* - B) | 2009 - 2014 | THE CASTLE SCHOOL, TAUNTON

- Including A* in Mathematics, and A English Language

Experience

PROJECTS

- **Sensor Fusion.** Research project looking at how GPS activity tracking can be improved by combining an accelerometer via sensor fusion. Implemented a Kalman Filter and currently looking at recurrent neural networks. Key Technologies: Python, Numpy, Git.
- **Stencil Optimization for Blue Crystal.** Performed serial and parallel optimizations to a stencil code for the Blue Crystal supercomputer. Vectorizing code and running it on multiple cores using MPI and OpenMP. Key Technologies: C, MPI, OpenMP.
- **Consent Giving Application** for We the Curious, Bristol. Worked centrally within a team of 6 students to develop an application for visitors to give consent for their data, this was voted as the best project in year at the CS in the City event. Personally responsible for the backend of the application. Key Technologies: Java, Spring, MYSQL, Thymeleaf.
- **Operating System Kernel**. Built a capable system kernel for an ARM Cortex-A8 target platform. The kernel implemented a scheduling algorithm, that could switch program contexts to simulate the concurrency of an OS. Implemented various POSIX system calls, allowing for Inter-Process Communication to solve the Dining Philosophers Problem. Key Technologies: C, Assembly.

Skills & Abilities

- Programming Languages - Proficient in C, Java. Experience in Python, C#, C++, XC and Haskell.
- Familiar with working in a Linux environment, running scripts, scheduling jobs etc.
- Worked with web technologies Spring Boot, Thymeleaf alongside a MySQL database.
- Ran and came 8th in the Dartmoor 50 Mile Ultramarathon, highlighting self-discipline to train and work hard every day, alongside my drive to never give up.
- Lead a team of six to complete the Ten Tors 55 award, thus showing an advanced ability to work in a team amidst great stress and physical exhaustion.

MATHS TUTOR | BRISTOL TUTORS |ST MARY REDCLIFFE SCHOOL | FEBRUARY 2017 - PRESENT

- Responsible for identifying on student's weaknesses and reinforcing their strengths.
- Organised and prepared lesson plans, alongside the academic studies of the first three years of my degree.
- Enjoyed building a strong working relationship and natural rapport with pupils to engage them in their work.

References

SION HANNUNA | TUTOR| UNIVERSITY OF BRISTOL

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