

Samuel Heath

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Education

The University of Western Australia, Perth

B.Sc. Software Engineering and Computer Science

Start: Feb 2015 **Finish:** July 2018

GPA: 6.75/7.0 **WAM:** 81.75%

Technical Skills

Programming (Experienced): Java, C#

Programming (Familiar): C, C++, Python, R, Haskell & Matlab.

Frameworks: Django, OpenMP, OpenMPI

Front-end: HTML, CSS, and Bootstrap

General Skills: Git, Heroku, and Raspberry Pi

Work Experience

BHP – *Technology Intern* (Nov 2017 – Feb 2018)

- Automated application monitoring by auto-generating dashboards on release, that aim to reduce downtime by alerting admins of errors, and high network and memory loads. (*Python, Grafana, and AWS API's*)
- Prototyped a 3D equipment maintenance planner to reduce maintenance time, and improve on the 2D planner. A full version with VR support was commissioned due to the success of the prototype. (*Three.js*)
- Automated front-end testing on a production web app to find bugs, and speed up testing. (*Selenium WebDriver*)

Bloom – *IT Officer* (July 2017 – Pres.)

- Managed IT infrastructure such as switches, AP's and IoT devices at the Bloom Labs.
- Built a MagicMirror to display inspirational quotes in the collaborative working space, using a custom web scraper to extract quotes from relevant websites. (*Raspberry Pi, Python*)

Projects

Bitcoin (Course Project) – (*Java*)

- A simplified version of the Bitcoin protocol which allows for the secure transfer of currency between users connected via SSL in a Point-to-Point network.
- Uses a customised Proof of Work difficulty, calculates and verifies the Merkle Root of transactions, and verifies transaction signatures, keeping the wallet up to date.

Guild Log System (Volunteer) - (*Django, Heroku*)

- Created an electronic logging system to replace the original paper based system, intended reduce UWA's footprint as well as automating data entry of volunteered hours to UWA student records.

Activities

Western Australia Capture the Flag – (December 2017)

- Competed in a pair against experienced players to solve a series of cyber-security challenges covering a range of common techniques, exploits, and tools, finishing tenth overall.

National Youth Week Hackathon – *Anglicare* (April 2017) - (*Django, Bootstrap, and Google Maps*)

- Built aggregate site that lists and maps services available to homeless youth in Perth.