

## Education

The University of Western Australia, Perth

B.Sc. Hons. Software Engineering and Computer Science

February 2015 to July 2019

GPA: 6.75/7.0 WAM: 81.75%

## Technical Skills & Interests

**Languages (Proficient/Preferred):** Java and Python

- **(Experienced):** C, and Matlab

- **(Familiar):** R, and JavaScript

**Libraries:** OpenMP, and OpenMPI

**Web:** Django, HTML, CSS, & Bootstrap

**General:** Git, Heroku, and AWS

**Electronics:** Arduino and Raspberry Pi

**Interests:** Problem Solving, Programming, AI, Electronics, Rocketry, Hockey, Guitar, and Teaching

## Work Experience

**BHP – Software Engineer (March 2018 – Pres.)**

- Working in a team to develop a cloud-based (AWS) web app, using *Django* with REST API endpoints, and a *React* frontend. I am also responsible for integrating the monitoring scripts I built in my internship.

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

- Implemented auto-generated dashboards in the CI pipeline to monitor web apps, and aiming to reduce downtime by alerting administrators of faults and high network loads. (*Python*, *Grafana*, & *AWS* API's)
- Automated front-end testing on web apps to find bugs, and ensure test cases were met. (*Selenium WebDriver*)

## Projects

**Moss-side Whist – (Java)**

- Researched and implemented an AI agent that finished 1<sup>st</sup> in a cohort-wide Whist competition. Based off an Information Set Monte Carlo Tree Search Algorithm to make strategic and optimal decisions.

**Bitcoin – (Java)**

- A simplified version of the Bitcoin protocol allowing for the secure transfer of currency between users connected in an encrypted Point-to-Point network, and uses a customisable Proof of Work, as well as verifying the Merkle Root and transaction signatures.

**Guild Volunteering – Volunteer Developer - (*Django*, *AWS*)**

- Volunteered to create an electronic log book to replace the paper-based log books, aiming to help reduce UWA's carbon footprint, and to automate data entry of student's volunteered hours for NFP's.

## Activities

**UWA Aerospace – Co-Founder & Lead Software Engineer (April 2018 – Pres.)**

- Founded a team to build a high-powered rocket for the inaugural Australian Universities Rocket Competition. I am responsible for acquiring funding, managing the team, developing relationships with mentors and industry, as well as designing and writing software for the flight computer, monitoring/analysis dashboard for the ground team, and maintaining the team website.

**Bloom – Head of IT (Volunteer) (July 2017 – Pres.)**

- Responsible for maintaining WiFi AP's, and IoT devices, as well as creating a fun and productive workspace for young entrepreneurs for example utilised TV's in the working space to show quotes, profiles of members currently in the space, and upcoming events run by Bloom. (*Raspberry Pi*, *Python*)

**Fishackathon – (Feb 2018) (*Django*, *Google Maps*, and *React*)**

- Competed in a team of 5 and won the Perth competition of a global hackathon aimed at reducing environmental issues caused by illegal and/or unsustainable fishing practices worldwide. We prototyped a Django web app to inform fishermen of the laws to adhere to by their location, and time of the year.

**Western Australia Capture the Flag – (December 2017)**

- Competed in a pair against experienced members of the cyber-security community, to solve a series of challenges which covered a range of common techniques, exploits, and tools, finishing 10<sup>th</sup> out of 45.