

Education

The University of Western Australia, Perth

B.Sc. Hons. Engineering Science (Software) and Computer Science

February 2015 to July 2019

GPA: 6.76/7.0 WAM: 82.0%

Technical Skills & Interests

Languages (Proficient/Preferred): Java and Python

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

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

Libraries: OpenMP, and OpenMPI

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

General: Git, Heroku, SQL, and AWS

Electronics: Raspberry Pi, Arduino, Micro-Controllers, and Soldering

Interests: Problem Solving, AI, Electronics, Rocketry, Hockey, Music, and Teaching

Work Experience

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

- Founded a team that manufactures high-powered rockets for national competitions. Responsibilities include acquiring funding, managing our IT needs, and additionally building the hardware and software for our flight computer, and monitoring dashboard.

BHP – Part-Time Software Engineer (March 2018 – Pres.)

- Working in a team to develop a cloud-based REST-ful web app, using *Django* with 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*)

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*)

Projects

Moss-side Whist – (Java)

- Researched and implemented an AI agent that finished 1st in a cohort-wide Whist competition. My agent used an Information Set Monte Carlo Tree Search algorithm to make strategic and optimal decisions in stochastic game playing environments.

Bitcoin – (Java)

- Developed a simplified version of the Bitcoin protocol allowing for the secure transfer of a virtual currency between users connected over an encrypted network, which rewards miners.

Guild Volunteering – (November 2016 – July 2017) (*Django, AWS*)

- Created an online logbook approval service for UWA's Volunteering Department. The service helps manage student's volunteered hours at Not for Profit organisations, and automatically integrates with UWA's transcript system.

Activities

Perth Unearthed Hackathon – Top 14 Team (April 2018)

Perth Fishackathon – Winner (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 – 10th (Dec. 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.

National Youth Week Hackathon – Participant (April 2017)