

## WORK EXPERIENCE

**CANVA** | INCOMING FRONTEND SOFTWARE ENGINEER INTERN

Sydney, AU | Dec 2021 - Feb 2022

**ENRICH EDUCATION** | FULL STACK DEVELOPER

Sydney, AU | Dec 2019 - Feb 2020

- Created automated web tutoring report system using **Vue.js**, **Django REST Framework**, and **SQLite** with user authentication
- Concisely visualised weekly student performance against the rest of their classes with interactive graphs using **Chart.js**
- Automatically emailed termly summarised reports created with **Matplotlib** and custom **HTML templates** using the **Gmail API**

## PROJECTS

**KH ITEM TRACKER** 

VUE.JS, TYPESCRIPT, PYTHON, WEBSOCKETS

- Developed a customisable tracker for progress in “randomiser” mods for a video game series using **Vue.js** and **TypeScript** with **mobile** support
- Used **WebSockets** powered by a **Python** backend for synchronisation between clients
- Integrated with the **Open Broadcaster Software (OBS)** to embed a transparent overlay that can be remotely controlled
- **Used by thousands of people around the world** (Cloudflare analytics)

**TWITCH COLOURS** 

VUE.JS, PYTHON, DJANGO, SQLITE, OAUTH, CELERY, REDIS

- Developed a full stack web application using **Vue.js**, **Django**, and **SQLite**, integrating with the Twitch **OAuth 2.0** flow for user authentication
- Used **Celery** and **Redis** to asynchronously connect to Twitch’s IRC servers to dynamically change the user’s colour after every message

**X2017** 

C, ASSEMBLY | COMP2017 SYSTEMS PROGRAMMING, 2021S1

- Implemented a **virtual machine**, **objdump**, and an **assembler** for an assembly language with a “backwards” non-byte-aligned binary format
- Implemented small programs directly in assembly for end-to-end tests with a Bash test script
- Optimised for a final compiled binary size of under 10 KiB
- Created as part of COMP2017 Systems Programming, 2021 Semester 1

**PROCCHAT**

C, CONCURRENCY, IPC | COMP2017 SYSTEMS PROGRAMMING, 2021S1

- Created a **concurrent** localised **chat server** in C using **inter-process communication** with named pipes
- Thoroughly tested through unit and end-to-end tests using CMocka
- Created as part of COMP2017 Systems Programming, 2021 Semester 1

**CAMELLIA SINENSIS**

C, CONCURRENCY, ENCRYPTION

- Implemented a thread-safe B-tree with encryption using the TEA algorithm and thoroughly tested using CMocka
- Created as part of COMP2017 Systems Programming, 2021 Semester 1

## COMPETITIONS

**ATLASSIAN X UNSW SECSOC CTF** | 4<sup>TH</sup>/83 TEAMS

Sydney, AU | 2020

- Placed **4th out of 83** teams in a 2 day cybersecurity capture-the-flag competition
- The **only winning team** with first year students

**NATIONAL COMPUTER SCIENCE SCHOOL CHALLENGE** | PERFECT SCORE

Sydney, AU | 2018

- Received a **perfect score** in a 5 week high school Python programming competition with thousands of global competitors

## EDUCATION

**University of Sydney**

Sydney, AU | Feb 2020 - Nov 2022

BACHELOR OF ADVANCED COMPUTING (COMPUTER SCIENCE)

Weighted Average Mark: 86% · Dalryell Scholar · Dean’s List of Excellence in Academic Performance · Academic Merit Prize · School of Computer Science High Honour Roll · Early Offer Year 12 (E12) Scholarship (\$5950)

## SKILLS

**Languages:** JavaScript/TypeScript · Python · C · Java · HTML/CSS · Shell/Bash · SQL

**Web:** React · Mobx · Vue.js · Vuex · Django/Django REST Framework · Stylus · Pug/Jade

**Technology:** Unix/Linux · Git · Nginx · Apache/HTTPD · CI/CD · Unit & E2E Testing