

Ashwin Gur

COMPUTER SCIENCE · MECHATRONICS · UNIVERSITY OF SYDNEY

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Education

University of Sydney

BENG (HONS) IN MECHATRONICS AND BSC IN COMPUTER SCIENCE

Sydney, AU

Feb. 2020 - Present

- Weighted Average Mark: 82.2%
- Dean's List of Excellence in Academic Performance
- Dalyell Scholar

Experience

Junior Records Developer

THE UNIVERSITY OF SYDNEY - ARCHIVES AND RECORDS MANAGEMENT DEPARTMENT

Sydney, AU

Apr. 2022 - Present

- Developing and maintaining many PowerBi Dashboards used by many departments and teams across the uni
- Rewrote critical backend applications with object oriented design patterns to optimise the running time by several hours using multi-threading to sustain the increasing reporting requirements
- Integrated feedback from clients to create insightful reports that are used to increase the productivity of University operations

Software Engineer

USYD ROCKETRY TEAM

Sydney, AU

Feb. 2022 - Jun. 2022

- Contributed to the development of a rocket modelling and simulation system for the Ironbark team, which is critical to the iterative design of the physical rocket
- Created a custom graphing and visualisation module using matplotlib, used during simulations
- Communicated very frequently with other student engineers to ensure module compatibility and meeting project milestones

Software Engineer Intern

USYD CUAVA

Sydney, AU

Oct. 2021 - Oct. 2022

- Helped with the development of a CubeSat operating system, CubeOS, by working on new and existing modules such as the propulsion system
- Taught myself about programming in Rust for low-level system architectures

Android Developer

COMPANY: STREAMPLATE

Sydney, AU

Jul. 2021 - Oct 2021

- Assisted new interns that joined the Front End team to understand the repositories
- Communicated clearly and frequently with the Front End and Back End teams in order to implement new features and fix bugs
- Published updates to the Play Store and reviewed feedback to improve user experience
- Maintained a high standard of work in the higher stress environment of a startup and prioritised urgent tasks for shareholders

Projects

Personal Website

PERSONAL PROJECT

 Code

Jan. 2023 - Present

- Learnt Next.js and Tailwind CSS to develop a fullstack application to display my portfolio and various other personal projects
- Used MongoDB as the database for some pages to create, update and fetch dynamic data

Turret-Spinner

PERSONAL PROJECT • INDIE GAME

 Code

Jan. 2022

- Utilised component pattern for making the code very modular and reusable
- State pattern used for encoding more complex behaviours for bosses
- Extensive use of OOP principles such as inheritance to reuse code and be able to effectively implement new game object ideas.

CHIP-8 Emulator

PERSONAL PROJECT

 Code

Dec. 2021

- A CHIP-8 Emulator written in Rust using the sdl2 library for the interface and input controls
- Closely followed the specifications outlined by the CHIP-8 Technical reference
- Consolidated understanding of low level programming and features such as ram, stack, registers and instructions

Skills

Languages Python • Java • C# • C++ • C • Typescript • HTML/CSS • MatLab • Rust • Assembly

