

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: 85.7%
- Dean's List of Excellence in Academic Performance
- Dalyell Scholar

Experience

Project Assistant

THE UNIVERSITY OF SYDNEY

Sydney, AU

Apr. 2021 - Present

- Working with the Archives and Records Management team as a PowerBi Dashboard developer
- Developed many important dashboards used by other faculties and departments to provide useful insights on trends
- Optimised an existing console application to process records from the database faster for more frequent data updates on PowerBi

Software Engineer

USYD ROCKETRY TEAM

Sydney, AU

Feb. 2022 - Jun. 2022

- Working on the Ironbark team whose purpose is to develop a complete rocket modelling and simulation system which the other teams will eventually use
- Using an OOP approach with Python
- Continued collaboration and meetings with other student engineers to ensure a smooth workflow and integration of tasks

Software Engineer Intern

COMPANY: CUAVA

Sydney, AU

Oct. 2021 - Oct. 2022

- Working under a lead engineer, in a team of 6 people to help develop a satellite system, CubeOS
- Coding in Rust to maintain or refactor existing modules and create new ones

Android App Developer

COMPANY: STREAMPLATE

Sydney, AU

Jul. 2021 - Oct 2021

- Assisting new interns/employees who have joined the Front End team (such as the required tasks and how the APIs work)
- Communicate effectively with the Front End and Back End teams in order to implement new features and fix bugs
- Responsible for pushing updates to the Play Store and reviewing feedback to improve user experience
- Maintaining a high standard of work in the higher stress environment of a startup and considering which tasks to prioritise

Projects

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
- Follows all the specifications outlined by the CHIP-8 Technical reference
- Consolidated understanding of low level programming and features such as ram, stack, registers and instructions

Stock Price Tracker

ANDROID APPLICATION

 Code

Jul. 2021

- A stock tracking tool for a web game's stock system that notifies a user when their selected triggers are reached
- Used Retrofit2 to make queries on the REST API and Services to make periodic queries while the app is closed.
- Used an Object Relational Mapper (Android Room) for the SQLite database to provide robust and efficient data management
- Strictly follows the MVVM architecture to maintain a separation of concerns between UI, business logic and databases

Turret-Spinner

PERSONAL PROJECT · INDIE GAME

 Code

Jan. 2022

- Component pattern used for making the code very modular
- State pattern used for implementing the bosses to encode more complex behaviour
- Extensive use of OOP principles such as inheritance to reuse code and be able to effectively implement new game object ideas.

Skills

Languages

C · Java · Python · MatLab · Kotlin · Rust · C# · Assembly

Applications/Systems

VScode · Android Studio · LaTeX · Linux/Unix · PowerBi · Linux/Unix · Content Manager