

EDUCATION

University of Adelaide

Adelaide, SA

Bachelor of Computer Science, Major in Cybersecurity

Feb 2022 - Nov 2025 (Expected)

- GPA: **6.6/7.0** (High Distinction average)
- Cybersecurity Courses: Cybersecurity Fundamentals (HD), Secure Programming (HD), Software Engineering & Project - Cybersecurity (HD)
- Core CS Courses: Algorithms & Data Structure Analysis (HD), Object Oriented Programming (HD), Web & Database Computing (HD), Operating Systems (D), Computer Networks (D)

EXPERIENCE

Dictionary 🐙

React, Next.js, Python (Flask), Git, Docker, SQLite

Creator & Lead Architect

April 2023 - Present

- Spearheaded Dictionary, an *open-source ecosystem* simplifying media automation for Radarr/Sonarr users via data-driven documentation, custom configurations, and integrated tooling.
- **Profilarr:** Architected and led development of Profilarr (🐙), a *full-stack* (React, Flask) configuration management tool (*100,000+ Docker pulls, 800+ GitHub stars*). Engineered its core *git-based synchronization* and a novel *compilation engine* to translate standardized configurations into application-specific syntaxes, enabling robust versioning and user customization.
- **Database:** Designed and implemented the Dictionary Database (🐙) (*20,000+ unique clones, 60+ GitHub stars*), establishing a *"single definition" standard* for configurations. Developed data-driven systems like the *Encode Efficiency Index (EEi)* with k-means clustering and the *Golden Popcorn Performance Index (GPPi)* to objectively rank media. Its design has inspired numerous forks (*70+*) and fostered wider community sharing of novel configurations.
- **Web Platform:** Developed the Dictionary web platform (dictionary.dev, 🐙) (Next.js) as dynamic, self-updating documentation for the database, using *Incremental Static Regeneration (ISR)*. Features an interactive Profile Builder to simplify user selection of complex configurations.
- **Community Management:** Cultivated and managed a vibrant Discord community of *800+ members*. This involved coordinating moderators and contributors, handling pull requests, feature requests, and issues, providing technical support, and enhancing engagement with a custom *Discord bot* interfacing with the Dictionary ecosystem.

PROJECTS

OMesh - Secure Decentralized Messaging Network 🐙

Python, React, Docker, WebSockets

Course Project - Secure Programming

October 2024

- Implemented end-to-end encrypted messaging system using RSA and AES-GCM cryptography
- Containerized application using Docker Compose for multi-server deployment
- Built React frontend with Vite for real-time messaging interface
- Utilized WebSockets for server-to-server and client-server communication

ClubHub - Student Club Management Platform 🐙

Vue.js, Express, MySQL

Course Project - Web & Database Computing

May 2023

- Built full-stack web application for university club management and event organization
- Implemented secure authentication system with multiple strategies (local and OAuth)
- Created responsive UI with Vue.js and Bootstrap
- Designed relational database schema for users, clubs, events, and memberships

Rogue - Turn-based Roguelike Game 🐙

C++, SFML

Course Project - Object-Oriented Programming

October 2022

- Developed procedural map generation system with dynamic enemy placement
- Implemented State Design Pattern for game object behavior management
- Created custom GUI components by extending SFML graphics library
- Built comprehensive test suite for sprite, text, and entity components

SKILLS

Languages: JavaScript, Python, C++, SQL, HTML/CSS

Frameworks & Libraries: React, Next.js, Node.js, Express, SFML, Tailwind

Tools & Technologies: Git, Docker, WebSockets, REST APIs, Linux, Bash, CI/CD,

Databases: MySQL, SQLite

Soft Skills: Community Management, Technical Documentation, Open Source Collaboration, Problem Solving, Systems Thinking