JENUL FERDINAND

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EDUCATION

Bachelor of Computer Science (Advanced) from Monash University in Clayton, Victoria

In Progress

PROJECTS

Student Reporting System for Digimaker

Link

- Architected & implemented an automated system within the Google Apps Script platform using HTML, CSS and
 JavaScript that allows teachers at Digimaker across 50+ schools to give weekly feedback for their students, and at the
 end of the term generating high quality reports for all students enrolled in the program.
- Worked around the limitations of the technology to offer a zero-cost solution to student reporting for the company.
- Optimised execution times and code quality by applying functional programming concepts learnt through my degree.
- Designed and hosted a web application using Google Apps Script to present a clear and accessible interface for adminstrators.

MonSTAR <u>Link</u>

- An accessible web application built for Monash University students to browse and review classes to take. Currently sitting at over 200+ unique reviews given by students across numerous faculties.
- Developed the backend using Node.js, Express, and MongoDB, implementing Google OAuth and RESTful API endpoints.
- Developed the frontend using Angular utilising ngx-graph to present course progression in a directed graph format.
- Delegated tasks for team members during development, utilising Jira for project management, ensuring completion before semester one of 2025.
- Populated our MongoDB Atlas database using scraped course and unit data from the Monash Unit Handbook.

WORK HISTORY

Computer Science Intern

August 2025 - Present

Hawthorn Football Club

Mulgrave, VIC

- Working with the technology team to build workflow optimisation projects for the coaches and staff.
- Developing an agentic pipeline with an environment setup by Google on their novel platform, Google Agentspace.
- Giving AI agents access to ChampionData hosted on the Snowflake platform.

Software Engineer

July 2025 – Present

Plandid

Remote, VIC

- Developing the backend using FastAPI and SQLAlchemy for Plandid's vendor marketplace mobile application. Built for couples looking for wedding photographers, videographers, and content creators.
- Implementing a GraphQL based matching system to match vendors and couples based on content style and preferences.

Programming Tutor

October 2024 - Present

Digimaker - Programming for Young Makers

Eastern Suburbs, VIC

- Teaching weekly Python, Java, C & JavaScript classes to primary school students across 8 different schools, achieving an average 90% in-class completion rate for my students.
- Used supplied lesson sheets to break down core programming concepts, allowing students to independently complete each coding challenge.
- Schools: Leibler Yavneh College, McKinnon PS, Ruskin Park PS, Mulgrave PS, ...

VOLUNTEERING

More Than Words Project Team Member

August 2025 - Present

Monash Assistive Tech Team

Clayton, VIC

- A student-led team designing open-source hardware and software that supports the daily lives of people with disabilities with community, care and creativity.
- More Than Words is a project that aims to support neurodivergent individuals in personal relationships by developing AI tools that enhance communication. It learns from expressive non-verbal cues like emojis, GIFs, and music, and later expands to text and tone.
- Working with a team of students, being led by a PhD candidate in the Monash Emodied Visualisation group.

Software Engineer

August 2025 - Present

Monash Connected Autonomous Vehicle

Clayton, VIC

- MCAV is a premiere engineering student team developing autonomous vehicle and intelligent transport technologies, from Monash University.
- My role is within the Urban Autonomy team, working with software and hardware R&D to achieve SAE Level 4 autonomy with MCAV's StreetDrone Renault Twizy vehicle.

Project Lead May 2024 – June 2025

Faculty of Information Technology Society (WIRED Monash)

Clayton, VIC

- Led the development of projects that benefit the student community at my university.
- Mentored team members with full-stack development with a primary goal of creating a productive and inclusive team environment.
- Oversaw project timelines using Jira, defining & monitoring issues, epics, and sprint goals.

Monash Innovation Guarantee

January 2025

UNICEF/Hashcode

Docklands, VIC

• Took part in the 3-week innovation sprint offered by Monash University to conceptualise and pitch a secure SaaS architecture for UNICEF's uSupport platform. Awarded with a HD final grade.

Computer Science YouTube Channel

July 2023 - Present

@ferdinandcoding

Online

- Produced educational videos on algorithms, data structures, and theoretical CS.
- Grew channel to over 600 subscribers and accumulated 350K+ views.
- Simplified Computer Science topics for a broad audience via short form and long form content.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, HTML/CSS/SCSS, Golang, SQL, JSX, Kotlin.

Technologies: React, React Native, Next.js, Angular, Node.js, Docker, MongoDB, PostgreSQL, Flask, Express

Tools: Git, NPM, Yarn, Powershell, Linux, VS Code, RegEx, Leetcode, Firebase, GCP, AWS, Oracle SQL Developer, Jira.

Libraries: pandas, numpy, matplotlib, manim, ngx-graph, RxJS, Socket.IO, JUnit, Jasmine.

UI Libraries: Bootstrap, Material-UI, PrimeNG, ChakraUI, NextUI, Ant Design, Tailwind CSS, Shadcn UI

 $\textbf{Concepts:} \ \textbf{Algorithms, Data Structures, Theoretical CS, Full-Stack Development, CI/CD, DevOps, Database Management.} \\$