Jenul Ferdinand

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Summary

Graduate Engineer | Field Operations & Systems Integration | Reliable and proactive professional with strong hands-on experience in Linux systems, network telemetry, and hardware-software integration. Proven leadership experience managing teams and training staff. Passionate about all things tech and loves fixing, automating, and optimising.

Education

Bachelor of Computer Science at Monash University, Clayton Campus   Graduating November 2026

Experience

Systems Engineer   August 2025 – Present
Monash Connected Autonomous Vehicle (student team)   *Clayton, VIC*
- Building a SIL simulation framework bridging the ROS 2 autonomous vehicle stack with a ride-hailing backend.
- Engineered vehicle telemetry systems, providing data transmission between vehicle and monitoring software.
- Managed hardware-software integration, diagnosing connection faults with ROS 2 and external network interfaces.
- Authored a technical proposal and feasibility analysis, utilising the Spiral Model to mitigate integration risks.
- Architecting the data pipeline, utilising event streaming for vehicle route performance and emissions data.

Intern   August 2025 – October 2025
Hawthorn Football Club   *Mulgrave, VIC*
- Engineered a workflow optimisation solution to facilitate analysis for the coaches, supporting match-day preparation.
- Facilitated the integration of enterprise cloud systems, enabling conversational AI with transactional AFL data.
- Conducted technical training sessions for non-technical coaching staff, simplifying complex topics.
- Collaborated with the GM of Tech & Data to identify process bottlenecks and deliver automated tooling solutions.
- Reduced manual data processing time for analysts by developing efficient sub-agent workflows for reporting.

GAS Automation Developer   March 2025 – June 2025
Digimaker   *Eastern Suburbs, VIC*
- Identified a bottleneck in the student reporting process and engineered an automation to generate PDF reports.
- Wrote JavaScript code in the Google Apps Script (GAS) environment for a zero-cost student reporting solution.
- Optimised script execution flow to handle high-volume batch processing within the strict execution time limits.
- Deployed a web interface allowing non-technical admins to trigger report generation and manage student data.
- Implemented CI/CD using Github Actions, utilising clasp and git for local development and version control.

Intern   January 2025
UNICEF   *Docklands, VIC*
- Designed a secure SaaS architecture for UNICEF's uSupport platform to integrate third-party services.
- Modeled API integration flows to enable secure data exchange between external apps and the core platform.
- Presented the technical roadmap to stakeholders, awarded with a High Distinction for the solution's feasibility.

Technology Mentor   October 2024 – Present
Digimaker   *Eastern Suburbs, VIC*
- Delivered technical training to diverse groups, breaking down complex logic into clear, actionable instructions.
- Acted as a key escalation point for students, troubleshooting logic errors and debugging code in real-time.
- Maintained high service standards with a high retention rate, ensuring positive parent/student relationships.
- Schools: McKinnon PS, Leibler Yavneh College, Ruskin Park PS, Mulgrave PS, Burwood East PS, Greythorn PS.

Project Lead   May 2024 – June 2025
Faculty of Information Technology Society (student society)   *Clayton, VIC*
- Directed a team of 8 staff/students, managing rosters, timelines, and deliverables using Jira.
- Coordinated logistics for student projects, ensuring resources were delivered on time and within scope.
- Facilitated a productive and inclusive team environment, prioritising time management to fit the busy uni schedule.
- Oversaw project timelines using Jira, defining & monitoring issues, epics, and sprint goals.

Projects

Chariot: A SIL Simulation Framework for Autonomous Vehicle Ride-Hailing
- Associated with Monash Connected Autonomous Vehicle.

md2data: A Tool to Convert Markdown Documents into Structured Data   *[npm](#)* *[PyPi](#)* *[Crates.io](#)* *[GitHub](#)*
- A high-performance library and CLI tool to convert markdown into JSON, TOML, YAML, or XML.
- Wrote parsing logic in Rust by constructing an Abstract Syntax Tree, utilising the pulldown-cmark pull parser.

MonSTAR: Monash University's Open-Source Course Review and Search Platform   *[Website](#)* *[GitHub](#)*
- A digital platform built for Monash University students to easily browse and review subjects and electives.
- Maintains average 1,000+ monthly visits with official endorsement from Monash University's IT Faculty.

Licenses

Australian Computer Society   Associate Member
Victorian Government   Working with Children Check
Victorian Driver's License

Technical Skills

Systems & Tools: Linux (Ubuntu/Debian), Bash Scripting, Network Telemetry (WebSockets/HTTP), AWS/GCP, Git
Core Competencies: Technical Troubleshooting, Team Leadership, Stakeholder Communication, System Integration.
Languages: Python, Rust, TypeScript (Scripting & Automation Focused)