

MANVENDRA (MIKE) SINGH

Melbourne, VIC

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PROFESSIONAL SUMMARY

Software Engineering (Hons) graduate with hands-on experience building and maintaining production web applications across PHP, JavaScript, React, TypeScript, Node.js, Python, and AWS. I enjoy full-stack work: building interfaces, wiring APIs, fixing messy bugs, and improving software that people actually use.

TECHNICAL SKILLS

Languages: PHP, TypeScript/JavaScript, Python, Java, C++, SQL, Bash, Go (basic)

Frontend: React, Next.js, React Native, HTML, CSS, custom hooks/components, React-Leaflet, ECharts

Backend & APIs: PHP, Node.js, Express, Django, REST APIs, GraphQL, Apollo

Data & Cloud: PostgreSQL, MySQL, MongoDB, AWS (EC2, S3, VPC), Docker, Terraform, ETL basics

Tools: Git, GitHub Actions, AWS CodeDeploy, Linux, Jira, Confluence, logs/monitoring

PROFESSIONAL EXPERIENCE

PoliceTax

Melbourne, VIC

Software Developer

Jun 2026 – Present

- Build and maintain production tax websites using PHP, HTML, CSS, and vanilla JavaScript in a live hosted environment.
- Standardised shared headers, footers, and responsive styling across PoliceTax and five sister sites, making layouts more consistent and easier to maintain.
- Refactored legacy templates by removing outdated UI elements, updating site-specific links and calls to action, and aligning pages to a cleaner shared design system.
- Troubleshot PHP template behaviour, booking modal integrations, responsive layout issues, and caching quirks across production websites.

Diagno Energy

Melbourne, VIC (Hybrid)

Software Engineering Intern

Nov 2025 – Mar 2026

- Built a customer-facing Portfolio Map in React, TypeScript, and React-Leaflet to help users navigate large solar fleets and jump from portfolio view to site-level issues.
- Integrated GraphQL and Apollo data into UI components and tightened TypeScript types to better match backend models, reducing data mismatches and improving release confidence.
- Supported production by triaging 20+ Jira tickets, reproducing bugs, checking browser console errors, and tracing faults across frontend and API layers.
- Worked with engineers and stakeholders to turn operational requirements into usable product features for a data-heavy platform.

Monash Deepneuron (Monash University)

Melbourne, VIC

Software Engineer

Apr 2023 – Jul 2025

- Built and operated a multi-node research cluster and distributed compute layer using OpenMPI to run containerised workloads across nodes.
- Implemented a lightweight scheduler core in Go and Python CLI tooling for job submission, monitoring, retries, and operational support.
- Improved reliability through Linux networking, health checks, and alerting, and debugged performance and stability issues with CMake, gdb, and profiling tools.
- Wrote runbooks and support material so non-specialist users could use workloads and infrastructure more reliably.

Alex Solutions

Melbourne, VIC

Software Engineering Intern

Jun 2022 – Dec 2022

- Delivered features for a data-orchestration web app used by 200+ enterprise users using React, Node.js, Express, and MongoDB.
- Optimised Node.js REST APIs to improve response time by approximately 25% and documented APIs to make handover and QA easier.
- Improved CI/CD with AWS CodeDeploy, reducing deployment time by approximately 40% and making release workflows more repeatable.
- Wrote regression checks using SQL and AWS tooling to cover key workflows and support safer production changes.

PROJECTS

Equipment Health Monitoring Platform

In Progress

Next.js, TypeScript, Node.js/Express, PostgreSQL, Docker, AWS

- Building a full-stack monitoring app for simulated asset telemetry with live alerts, incident history, and asset-level drill-down views.
- Designing dashboards for status trends, fault events, and threshold breaches so the product feels closer to a real operational tool than a demo.
- Using API-backed services, containerised local development, and a structure that can grow into a production-style deployment.

Predictive Maintenance Data Pipeline

In Progress

Python, FastAPI, PostgreSQL, Docker, AWS, Terraform

- Building a pipeline that ingests simulated equipment telemetry, validates and stores time-series data, and flags anomalies tied to maintenance thresholds.
- Creating scheduled ETL jobs and reporting-ready outputs that can feed dashboards, alerts, and downstream services.
- Using Docker and Terraform to keep the project reproducible and closer to real deployment and infrastructure workflows.

HydroSync

Mar 2024

React Native, Django, Python, AWS

- Built a mobile app and backend API for dehydration risk alerts, with Python-based data processing and AWS deployment.
- Worked across mobile UI, backend logic, and cloud deployment in a small project team.

ClovAR (Hackathon)

Aug 2019

Flutter, Python, AR.js

- Built a gamified AR exploration app with Flutter features, a Python classifier, and an AR.js service for rendering 3D plant models.

EDUCATION

Monash University

Melbourne, VIC

Bachelor of Engineering (Honours) in Software

Apr 2024

LEADERSHIP

DiversIT Monash

Melbourne, VIC

President

2023 - 2024

- Led a student technology club, coordinated committee work, and helped improve communication and delivery across events and initiatives.