## Patrick (Yuzhuo) Ma

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## **Software Engineering & DevOps Engineering**

Graduate Software Engineer with strong Computer Science fundamentals and hands-on experience in full SDLC, Agile development, automated testing, and cross-platform SaaS deployment. Adaptable and curious learner with a passion for delivering secure, customer-facing applications in real-world environments. Eager to grow through mentoring and cross-functional rotations.

#### **Education**

Master of Information Technology(Distributed System) University of Melbourne (2023.02 – 2024.06)

Bachelor of Software Engineering(Honours) Monash University (2020.02 – 2022.11)

IT Department Lead in Monash Student Association, Awarded scholarship

#### **Skills**

Coding Languages: Python (4 yrs), Java (3.5 yrs), Dart (1 yrs), JavaScript, HTML, CSS(2 yrs), C++ (1 yr)

Frameworks: Flask (2 yrs), React (2 yrs), Flutter (1 yr), Spring Boot 2.0 (1 yr)

DevOps & Cloud: GitHub CI/CD, Unit Testing, Docker, AWS (Lambda, EC2, RDS), Firebase, Terraform

Databases: MySQL, MongoDB, Firebase NoSQL

Other: Agile & Scrum, RESTful API, SDLC, Version Control (Git)

## **Work Experience**

Full Stack Android & Web Developer (Java, Android, MySQL)

2025.06 - Now

#### Taptouch, Melbourne

Description: **Designed and implemented membership and voucher features** in Java, integrating business logic with backend MySQL databases and Android front-end components. Successfully delivered scalable modules now supporting operations in **2000+ Australian/UK stores**, improving customer engagement and system functionality.

- Designed and implemented membership and voucher modules with a strong emphasis on code maintainability, modular design, and testability.
- Built backend data associations in MySQL, ensuring ACID-compliant transactional integrity at scale.
- Wrote integration and unit tests using JUnit; performed validation through field tests on Android POS devices.

Flutter Developer (Flutter, Android, IOS, Firebase)

2024.02 - 2024.06

Recam, Sydney

<sup>\*</sup> Permanently settled in Australia with full and unrestricted work rights.

<sup>\*</sup> yrs include academic experience

Description: Built the initial MVP  $(v_0.1)$  of a cross-platform marketplace (web, Android, ios), connecting supply and demand with a focus on functional stability and intuitive UX. Integrated analytics to user behaviour to validate marketing hypotheses and support data-driven product iteration.

- Developed a highly responsive Cross-Platform application for Web/ios/Android by optimising components using memoisation and lazy loading.
- Improved code **scalability** and **maintainability** by adopting **MVVM architecture** and leveraging Observer and Singleton design patterns for efficient state and component management.
- Integrated Firebase for authentication (SMS/Email), file storage, and real-time NoSQL database management

# Full Stack Web Developer internship (React, TypeScript, Node.js, Firebase) 2023.10 - 2024.03 InflaMed, Melbourne

Description: Developed the online consultation module and profile page for a Web & Mobile Healthcare platform supporting outpatient appointments and remote video consultations.

- Delivered **TypeScript-based SPA** with responsive UI for remote patient consultations.
- Integrated **Dyte API** after benchmarking against 100ms & Zoom, aligning product with clinical use case requirements.
- Contributed to full-stack testing, including SSR performance validation and API regression testing.
- Automated backend deployments via Terraform + GitHub Actions, reducing post-release bugs and manual steps.

## **Backend Developer (Python, Flask, React, AWS)**

2021.08 - 2022.06

#### Harbin Institute of Technology, AI Research Co., Ltd, China

Description: Developed a code-free AI training visualisation platform for students to train and test models (image classification, segmentation, detection). Deployed in university teaching environments, demonstrating real-world usability and impact in AI education.

- Engineered Flask-based RESTful API and modular backend architecture (MVC) to support training engines (PyTorch).
- Developed a visual AI training platform used by students with no coding background, demonstrating usability focus.
- Deployed system via Docker & Jenkins CI/CD pipelines for high availability in university settings.
- Addressed CORS, routing and load balancing issues using Nginx, ensuring cross-device compatibility and performance.

#### Reference

Mari Robert	CEO of InflaMed	mari@inflamed.com.au
Larry Yu	Product Owner & Sys Architecture in Recam	larryyu@recam.com.au