

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, SQL, PHP
Frameworks: React, Next.js, React Native, Node.js, Spring Boot, Vue.js, Remix
Testing & Automation: Appium, Selenium, Jest, Pytest, Postman, Test Planning, QA Automation
Tools: Git, Docker, Firebase, AWS (EC2, S3), GitHub Actions, Figma, Supabase
Databases: PostgreSQL, MySQL, MongoDB, Oracle, Prisma, Firebase Realtime DB
Other: REST APIs, Authentication (JWT, OAuth, SSO), CI/CD, Agile/Scrum, SEO Optimization, RBAC

EXPERIENCE

Software Engineer Intern – QA Automation July 2024 – Dec. 2024
Grab *Petaling Jaya, MY*

- Spearheaded development of an AI-powered test automation agent, eliminating manual scripting overhead for authentication workflows and accelerating test development by 60%.
- Delivered 22 production-grade Python automation scripts using Appium and Selenium frameworks, exceeding H2 2024 automation coverage targets by 15% for Grab's Identity platform.
- Collaborated cross-functionally with product managers, designers, and engineering teams across 3 squads to define comprehensive test strategies for new authentication features on iOS and Android platforms.
- Executed critical weekly regression test suites ensuring platform stability and security for 200+ million Grab users across 8 Southeast Asian markets.
- Identified and documented 40+ bugs across authentication flows, including 8 critical security vulnerabilities, directly contributing to improved user trust and platform reliability.
- Designed and maintained detailed test documentation including test plans, test cases, and automation frameworks following industry best practices and Agile methodologies.

Frontend Developer Oct. 2022 – Feb. 2024
CommerceOwl *Edmonton, CA (remote)*

- Architected and delivered feature-rich web applications across multiple JavaScript ecosystems (React, Remix, Next.js, Vue.js) with 95%+ test coverage using Jest and React Testing Library.
- Drove 32% increase in conversion rates for RecipeStack Shopify app through strategic UI/UX improvements, A/B testing, and performance optimizations that reduced page load times by 40%.
- Owned end-to-end design and implementation of ImagineAPI platform using Next.js, from Figma prototypes to production deployment, serving 200+ monthly active subscribers.
- Collaborated with backend teams to integrate RESTful APIs and optimize data fetching patterns, reducing client-side data requests by 45%.

Software Engineer Intern July 2023 – Oct. 2023
UM PTM *Kuala Lumpur, MY*

- Instrumental in modernizing UM's legacy procurement system, building a full-stack web application using PHP MVC architecture and MySQL that streamlined procurement workflows for 500+ university staff.
- Engineered robust server-side validation layer in PHP with MySQL constraints and triggers, preventing data corruption and ensuring compliance with university procurement policies.
- Collaborated with stakeholders across 5 departments in Agile sprints to gather requirements, design system architecture, and deliver modular, maintainable code.

PROJECTS

TeaPOS – Multi-Tenant Point-of-Sale Platform | <https://github.com/ahmadfahrezi81/tea-pos>
Next.js 14, TypeScript, Supabase, PostgreSQL, Tailwind, Chart.js, shadcn/ui

- Architecting enterprise-grade, multi-tenant SaaS POS system supporting isolated data management for unlimited organizations with tenant-scoped users, stores, and real-time financial analytics.
- Engineered normalized Supabase schema with 12+ relational tables (orders, products, tenants, expenses, summaries) implementing row-level security policies for bulletproof data isolation.
- Built responsive admin dashboard leveraging Next.js 14 App Router, React Server Components, and Chart.js for real-time sales visualization and business intelligence.
- Implemented granular role-based access control (RBAC) with store-level permissions using Supabase Auth, middleware policies, and custom authorization hooks.

Eco-Mobility Tracker | <https://github.com/ahmadfahrezi81/Eco-Mobility-Mobile-App>
React Native, Next.js, TypeScript, Redux, Firebase, Expo, Google Maps API

- Engineered cross-platform mobile application tracking real-time carbon footprints using GPS sensors, accelerometer data, and machine learning-based transport mode detection.
- Designed hybrid system architecture combining React Native client with Next.js SSR dashboard for scalable data analytics, user management, and environmental impact visualization.
- Optimized background location tracking with intelligent data batching and compression algorithms, reducing battery consumption by 28% while maintaining 99% sync reliability.
- Integrated Google Maps Platform APIs for interactive route visualization, carbon emission heatmaps, and alternative eco-friendly route suggestions; managed real-time sync with Firebase Realtime Database.

EDUCATION

University of Malaya

Kuala Lumpur, MY

Bachelor of Computer Science, Software Engineering

Oct. 2021 – Oct. 2025

- **Relevant Coursework:** Data Structures & Algorithms, Database Systems (Oracle, MySQL, MongoDB), Object-Oriented Design & Implementation, Mobile App Development (Android), Machine Learning (TensorFlow), Web Development (Spring Boot, PHP, React), Software Engineering Principles