

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, 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.
  - \* Conducted user research and interviews with 50+ potential users to inform product design decisions, resulting in 78% user satisfaction score.
  - \* Implemented advanced SEO strategies including dynamic sitemap generation, meta optimization, and Core Web Vitals improvements, achieving 137% traffic growth and ranking jump from position 5 to 2 for target keywords.
- 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.
- Designed normalized database schema with 15+ tables handling complex procurement relationships including requisitions, approvals, vendors, and purchase orders.
- 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.
- Developed mobile-optimized POS interface with offline-first architecture and intelligent product search, achieving 35% reduction in transaction processing time.
- Designed RESTful API architecture with serverless functions for analytics endpoints (timeline metrics, store breakdowns, revenue forecasting) deployed on Vercel edge network.

#### **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.
- Established automated CI/CD pipeline using Expo EAS and GitHub Actions for continuous testing, building, and deployment across Android and iOS platforms.

#### **Tost – Restaurant Management System** | <https://github.com/ahmadfahrezi81/Tost>

*Next.js, TypeScript, Tailwind, PostgreSQL, Prisma, Cloudinary*

- Led team of 5 developers using Agile methodologies to architect and deploy full-stack restaurant management platform handling menu operations, order processing, and reservation systems.
- Designed modular system architecture with clear separation of concerns, enabling independent scaling of menu management, order workflow, and table booking modules.
- Implemented secure authentication system using Google OAuth 2.0 and JWT tokens with role-based access controls for staff, managers, and administrators.
- Built type-safe data layer with PostgreSQL, Prisma ORM, and Zod schema validation ensuring data integrity across all database operations and API endpoints.

## EDUCATION

### **University of Malaya**

*Bachelor of Computer Science, Software Engineering*

Kuala Lumpur, MY

*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