Ahmad Fahrezi

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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   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