

# MOHAMMAD FARHAN

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## SUMMARY

Computer Science (Computer Network) graduate from Universiti Putra Malaysia seeking a software engineering role. Experienced in building and deploying full-stack applications on cloud platforms, including AI-powered chatbot integrations. Skilled in API design, containerization (Docker), and system integration, with a strong foundation in networking (TCP/IP, DNS). Recognized for outstanding performance in regional technical competitions and real-world projects.

## EDUCATIONAL BACKGROUND

### Bachelor of Computer Science (Computer Network), Universiti Putra Malaysia 2021 - 2025

- CGPA: 3.96
- Vice Chancellor Awards, Dean List Awards

### Matriculation Programme, Kolej Matrikulasi Labuan 2020 - 2021

- CGPA: 3.75

## WORK EXPERIENCE

### Software Engineer Intern — Digital Heritage Sdn. Bhd. Mar 2025 - Aug 2025

- Developed Python-based applications and conducting system testing to ensure functionality, reliability, and seamless integration.
- Designed and deployed a microservice on DigitalOcean, integrating it with a Rocket.Chat chatbot via a custom plugin to automate response handling.

### Freelance Web Developer — Soloreen Ventures Sept 2024 - Feb 2025

- Developed custom WordPress websites, focusing on performance, responsiveness, and user experience to improve usability and site reliability.
- Collaborated with clients to gather requirements and translate business needs into scalable web solutions aligned with best practices.

## ACHIEVEMENTS

### Huawei Developer Competition 2023 — Asia Pacific (Innovation Award)

- Developed a prototype of CommunityCARE, a complaint management system that enhance public engagement and transparency in local governance.
- Integrated Huawei Cloud services, including Object Storage Service (OBS) for data storage and ModelArts for image recognition to support automated issue reporting.

### APAC HPC-AI Competition 2023 (Merit Award)

- Optimized the Model for Prediction Across Scales (MPAS) by tuning processing elements and threading to improve simulation speed and resource utilization.
- Developed PBS batch scripts to automate job scheduling and resource allocation, increasing throughput in distributed computing environments.

## PROJECTS

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### PayTrack — Invoicing Platform

- Built a multi-tenant invoicing system with Java Spring Boot and Vue.js, featuring AI-powered assistant integrated with Google Gemini.
- Deployed a serverless PDF generation pipeline using AWS Lambda, ECR, API Gateway, and S3 with presigned URLs for scalable document distribution.

### QRBridge — QR Code Generation Microservice

- Built a serverless Python microservice on DigitalOcean Functions exposing a REST API for QR code generation with configurable payloads and input validation.
- Integrated Rocket.Chat and the Telegram Bot API to support real-time QR code generation and delivery from chat commands.

### AquaVision — Home-Based Aquaculture Monitoring System

- Built a React Native mobile app for real-time aquaculture monitoring, collecting environmental data via ESP32 microcontroller and sensors.
- Integrated Firebase Realtime Database and Cloud Functions to process sensor readings and trigger automated alert notifications.

### DomainXray — DNS & WHOIS Analysis Tool

- Built a domain intelligence tool with a custom DNS resolver and WHOIS client to query domain records, ownership, and registration data.
- Developed a FastAPI backend and Vue.js frontend to consolidate DNS lookups, WHOIS queries, and results in a unified interface.

### CloudPulse — Cloud Service Health Monitor

- Built a service uptime monitoring system with scheduled health checks tracking status, latency, and response codes, with a real-time dashboard.
- Implemented a state-machine alert engine using FastAPI and APScheduler for consecutive failure detection and recovery tracking.

## SKILLS

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- **Programming Languages:** Java, Python, JavaScript, Bash (Shell Scripting)
- **Backend:** Spring Boot, FastAPI, Node.js, RESTful APIs, Serverless Functions, LLM Integration
- **Frontend:** Vue.js, React Native, Tailwind CSS
- **Databases:** PostgreSQL, Firebase Realtime Database
- **Cloud & Infrastructure:** Docker, AWS, DigitalOcean, Huawei Cloud, Firebase
- **Networking:** TCP/IP, DNS, HTTP/HTTPS, TLS/SSL, Routing Protocols
- **Tools:** Git, GitHub, Linux (WSL)
- **Languages:** Malay (Native), English (Advanced)