# NUR AFAZAN ZULAIKHA MOHAMMED

AI Engineer | Software Developer

Malaysia

## PROFESSIONAL SUMMARY

Software developer with 10+ years of experience delivering applications and backend services for U.S.-based companies, with recent specialization in AI engineering. Builds LLM applications, retrieval-augmented generation (RAG) pipelines, and workflow automation using Python and TypeScript. Brings full stack development, API design, automated testing, and cloud operations together to deliver reliable products. Based in Malaysia with experience collaborating across U.S. time zones.

## TECHNICAL SKILLS

**Programming:** Python, TypeScript, JavaScript, SQL; earlier experience with PHP

**AI engineering:** LLM APIs, RAG, embeddings, vector search, LangChain, LangGraph

**Backend & frontend:** FastAPI, Pydantic, Django, Node.js, React, REST APIs

**Data & cloud:** PostgreSQL, pgvector, Redis, MySQL, AWS, Docker

**Delivery & reliability:** pytest, Jest, Playwright, GitHub Actions, CI/CD, observability

## PROFESSIONAL EXPERIENCE

### Cedarvale AI Labs | Senior AI Engineer

Jan 2023 - Present | United States | Remote from Malaysia

- Delivered a RAG knowledge assistant using Python, FastAPI, LLM APIs, and pgvector; reduced average document lookup time from 12 to 4 minutes in a 40-user pilot.
- Built ingestion, chunking, and embedding jobs for 25,000 support articles, with retry handling, source citations, and access-aware vector search.
- Created a 300-question regression set and release quality checks; improved retrieval recall@5 from 72% to 87% through filtering and chunking experiments.
- Deployed Docker services on AWS with quality, latency, and cost dashboards; reduced inference cost per request by 28% through caching and model routing.

### Pinecrest Cloud Software | Senior Software Engineer

Jan 2021 - Dec 2022 | United States | Remote from Malaysia

- Owned React and TypeScript features and Node.js REST APIs from technical design to release, supporting 60 SaaS customers and 8,000 monthly active users.
- Improved PostgreSQL indexes, query plans, and Redis caching; reduced p95 API response time from 850 ms to 320 ms under comparable load.
- Introduced Jest tests, GitHub Actions CI/CD, and release runbooks, reducing deployment preparation from 90 to 20 minutes; mentored two developers through reviews.

## PROFESSIONAL EXPERIENCE (CONTINUED)

**Harborstone Commerce** | Full Stack Developer

Jan 2019 - Dec 2020 | United States | Remote from Malaysia

- Built React storefronts and Node.js services for an e-commerce platform processing 15,000 monthly orders; collaborated with product and design on customer workflows.
- Integrated payment and inventory APIs with retry handling and idempotency keys, reducing duplicate order incidents by 70% over two quarters.

**Summitpath Digital** | Software Developer

Jan 2016 - Dec 2018 | United States | Remote from Malaysia

- Developed Django applications and REST APIs for scheduling and reporting, replacing spreadsheet workflows for a 30-person operations team.
- Automated weekly reports with Python and SQL, saving approximately eight staff hours per week; added role-based permissions and regression tests.

**Maplebridge Web Solutions** | Junior Software Developer

Jul 2014 - Dec 2015 | United States | Remote from Malaysia

- Developed and maintained responsive client websites using JavaScript, PHP, and MySQL; delivered forms, dashboards, and content management features.
- Resolved cross-browser defects and optimized frontend assets, reducing average page load time from 4.6 to 2.8 seconds in repeatable browser tests.

## SELECTED PROJECTS

**Support Workflow Agent** | Python, LangGraph, FastAPI | Personal prototype

- Built a tool-calling agent that retrieves support guidance and drafts ticket updates; added Pydantic output validation, human approval before writes, and a 100-case evaluation suite.

**Remote Team Task Board** | React, Node.js, PostgreSQL | Personal project

- Built authentication, role-based access, activity logs, and WebSocket updates; added Playwright workflow tests and Docker packaging for repeatable deployment.

## EDUCATION

Bachelor of Science in Computer Science | Meridian Institute of Technology, Malaysia

2014 | Coursework: Data Structures, Algorithms, Databases, Software Engineering

## CERTIFICATIONS & ADDITIONAL INFORMATION

AWS Certified Developer - Associate | Amazon Web Services | 2025

Languages: English and Bahasa Melayu | Preferred arrangement: Remote from Malaysia