MUHAMAD FAISZUDDIN BIN MOHD NASIR



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PROFESSIONAL SUMMARY

Computer Science undergraduate (CGPA 3.87) with a six-month software engineering internship on the Joget platform and full-stack project experience in Python/FastAPI, Java Spring Boot, React and PostgreSQL. Built a flood evacuation routing system combining Random Forest risk prediction with modified A* pathfinding. Experienced in freelance web development.

EXPERIENCE

Software Engineer Intern | Innov8tif Solutions Sdn. Bhd., Subang Jaya, Selangor *Sep 2024 – Feb 2025*

- Developed the Purchase Mandays Tracking System on Joget from requirements to deployment, including forms, role-based permissions, datalists and AJAX subforms, refined through stakeholder demos and user feedback.
- Implemented an audit trail with before/after field-level change logs, a cron-based scheduler and email notifications, and mandays calculation and allocation logic for purchase orders.
- Developed custom Java plugins (Standard Java and Dynamic OSGi) for the Spring-based Joget DX platform, including JDBC form binders with MySQL, Amazon S3 binder, Gantt chart, PDF download and Slack webhook integration, wrote system documentation and a user manual.

Freelance Developer | Remote *Early 2024 - Present*

- Built and delivered websites based on client requirements.
- Supported students with course and final-year projects, including system design, debugging and implementation.
- Developed Python data processing workflows to convert image-based data into structured text.

PROJECTS

SAFEROUTE: Dynamic Flood Evacuation Pathfinding System Using Modified A* Algorithm with Risk-Based Random Forest Prediction for Flood-Prone Areas in Kelantan, Malaysia | *Final Year Project*

- Developed an evacuation routing system for Kelantan using Python/FastAPI, Java/Spring Boot, React and PostgreSQL/PostGIS.
- Integrated a Random Forest flood-risk model with modified A* routing across 139,563 road edges, using water-level and rainfall inputs to calculate route penalties.
- Developed a mobile application for public users alongside the operator dashboard.
- Built an operator dashboard for risk monitoring, evacuation centre management and asynchronous processing, with data-quality warnings for missing or stale readings.

AutoSphere – Used Car Marketplace Platform

- Developed a web-based platform for used car listings, vehicle search and dealer management, with appointment booking for car viewings and test drives.
- Designed role-based access for buyers, sellers and administrators. Integrated vehicle comparison, wishlist and content management features.

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, JavaScript, PHP, Dart, SQL
- **Frameworks and Libraries:** React, Spring Boot, FastAPI, Node.js, Express, Flutter
- **Web Technologies:** HTML, CSS, Tailwind CSS, REST APIs
- **Databases:** PostgreSQL/PostGIS, MySQL, SQLite
- **Machine Learning and Automation:** scikit-learn, pandas, NumPy, Random Forest, XGBoost, OCR, LLM API integration
- **Tools and Platforms:** Git, GitHub, Docker, Maven, Joget DX
- **Technical Concepts:** Role-based access control, relational database design, A* pathfinding, audit trails

EDUCATION

Bachelor's Degree in Computer Science, UiTM Kuala Terengganu Campus | CGPA: 3.87 *Sep 2025 – Present*
Diploma in Computer Science, UiTM Machang Campus | CGPA: 3.88 *Oct 2022 – Feb 2025*

ACTIVITIES AND INVOLVEMENT

- **Head of Multimedia and Publicity Exco, UiTM club (3 semesters):** led event content and social media.
- **Programme and Collaboration Committee Member, MPP and clubs (3 semesters):** ran joint events.
- **Tutor, CSC186 Object-Oriented Programming and CSC248 Data Structures:** coached students for exams.

AWARDS

- Gold Award, Malaysia Technology Expo 2021, Champion, Sime Darby Young Innovation Challenge 2021 (height device).
- Dean's Award, awarded every semester for academic excellence.

REFERENCES

Miss Nik Nasyarani, Industry Training Coordinator, UiTM
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Dr. Farah Muna, Final Year Project Supervisor, UiTM
farahmuna@uitm.edu.my | 017-9551255