MOHD SHAFIQ IRWAN MAT YAJID

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SUMMARY

Software Developer with nearly 6 years of experience in web and mobile development, focusing on geospatial mapping and 3D visualization for real-time monitoring solutions. Experienced in navigating the entire development lifecycle, from requirements analysis and technical scoping to production deployment.

PROFESSIONAL EXPERIENCE

BUMI WANGSA TMS SDN. BHD.

WEB AND MOBILE DEVELOPER, OCT 2023 – PRESENT

2026 – Present | Report Pro

- Contributed to the development of a platform for the Oil & Gas and Non-Destructive Testing (NDT) industry that automates inspection report generation.
- **Key Contributions:**
    - Built core interactive features for the report builder, developing image annotation and editing tools using Next.js and Fabric.js.
    - Configured automated CI/CD pipelines using **GitHub Actions** and **Docker Compose** to streamline containerized deployments, database migrations, and service health checks.

2025 – Present | Connect City (Smart City IoT Platform)

- Managed the frontend and geospatial integration for a smart-city street-lighting management platform, overseeing the real-time map interface and operational dashboards for thousands of field devices.
- **Key Contributions:**
    - Developed interactive map features using **MapLibre GL** and **Turf.js**, including Supercluster marker clustering, GeoJSON zone overlays, and zoom-dependent rendering.
    - Integrated third-party IoT data streams to ensure real-time telemetry updates for the map and dashboard views.
    - Created core dashboard modules for maintenance teams, including work-order tracking, alert triage, and remote device control.
    - Developed admin management features using **Laravel** and **Inertia.js** to handle organization branding, bot accounts, and Telegram channel integration.

2025 | Vessel Monitoring and Tracking Platform

- Developed a real-time maritime fleet tracking and telemetry dashboard featuring interactive geospatial mapping, voyage planning, historical route replay, and comprehensive navigation analytics.
- **Key Contributions:**
    - Managed the frontend development using **React 19**, **TypeScript**, and **Zustand**.
    - Developed a modular geospatial interface using **MapLibre GL** and **Turf.js** for live vessel tracking, directional marker rotation, and dynamic route visualization.
    - Implemented mapping features, including interactive geofencing, historical route replay for voyage analysis, route planning with Estimated Time of Voyage (ETV) computation, and dynamic raster weather overlays.

2024 - 2025 | Asset Integrity Management System

- A web-based Asset Integrity Management System featuring a Risk-Based Inspection (RBI) engine. It models industrial plant equipment to compute failure probabilities, manage anomalies, and streamline maintenance workflows for oil and gas operations.
- **Key Contributions:**
    - Developed core frontend modules for asset registration, inspection scheduling, and risk analysis using **React 18**, **TypeScript**, and **Mantine UI**.
    - Implemented logic for complex asset hierarchies and data modeling to compute failure probabilities (PoF/CoF) across industry-standard damage mechanisms.
    - Designed interactive data input interfaces and visualization dashboards to track equipment history, maintenance status, and risk analysis metrics.

2023 - 2024 | Industrial Pump Real-time Monitoring

- An operational dashboard for real-time monitoring and alerting of industrial assets, providing a geospatial, drill-down view of equipment health and telemetry across multiple sites.
- **Key Contributions:**
    - Developed an interactive geospatial dashboard using **Mapbox GL**, featuring dynamic GeoJSON markers to visualize asset locations and health statuses.
    - Integrated real-time industrial telemetry using **Pusher** and **TanStack React Query**, enabling live monitoring of critical sensor metrics including temperature, vibration, flow, and pressure.
    - Developed dynamic data visualization modules such as line charts, scatter plots, and gauge components to surface health and risk scoring for industrial equipment.

2024 - 2025 | ICMS (Integrated Content Management System)

- A web application for managing clients, projects, users, and document resources, featuring a role-based analytics dashboard and real-time updates.
- **Key Contributions:**
    - Led the overall frontend development of the platform, overseeing the implementation of role-based workflows for project and client lifecycle management, alongside dynamic dashboards and operational reporting.
    - Developed a custom design system and component library, focusing on modularity, neumorphism styling, and reusable form components.

INTTECH TECHNOLOGIES SDN. BHD.

FRONTEND AND MOBILE DEVELOPER, MAR 2023 – OCT 2023

2023 | e-CCBE Web-based Platform & Cross-Platform Mobile App

- Developed a dual-platform corporate training solution for course management, video assessments, and compliance reporting to support staff development.
- **Key Contributions:**
    - Developed the interactive web portal using **React** and **Redux Toolkit** for complex state management and analytics dashboards for tracking staff progress.
    - Developed a cross-platform mobile application using **Flutter**, implementing offline video playback capabilities and local data persistence.
    - Implemented assessment modules and integrated reporting functionalities for tracking staff progress.

- Managed the full mobile application deployment lifecycle, overseeing production releases for **App Store** and **Google Play**.

2023 | Street Light Inspection & Maintenance Management System

- Developed an integrated inspection system connecting a mobile data-capture app with a web-based maintenance dashboard.
- **Key Contributions:**
  - Developed a mobile inspection app using **Flutter** for data capture and **RFID integration**.
  - Built web-based monitoring and performance dashboards using **React JS**.
  - Implemented **Mapbox GL** to visualize asset locations and tracking data.

SYNAPSE INNOVATION SDN. BHD.

SENIOR EXECUTIVE (FRONTEND), JUNE 2022 – FEB 2023

2021 - 2023 | Drone OS

- A platform for remote infrastructure inspection and asset intelligence. Enables automated data processing, AI-driven defect detection, and digital twin reporting, optimizing operational safety and decision-making.
- **Key Contributions:**
  - Led the frontend development of the core application, optimizing the rendering and interaction of 3D models, point clouds, and high-resolution inspection imagery using visualization libraries such as CesiumJS, Mapbox JS, and Three.js.
  - Collaborated with AI and backend teams to integrate and visualize complex datasets, including AI-driven defect detections and real-time data streams via **REST APIs** and **Pusher**.
  - Designed and implemented Microfrontend Architectures and reusable components to accelerate development cycles.

EXECUTIVE (FRONTEND AND GIS), SEP 2021 – MAY 2022

2021 - 2022 | HR Core Management System & Cross-Platform Mobile App

- Built a comprehensive HR system, including modules for attendance, leave, and claims, paired with a cross-platform mobile application.
- **Key Contributions:**
  - Developed web interfaces for HR modules using **Vue.js**.
  - Built a cross-platform mobile application using **Flutter**.
  - Implemented data validation and API integration for HR operations.
  - Managed the deployment lifecycle for AppStore and Google Play.

2021 | PRISM Project Management Solution

- Developed a project oversight platform featuring analytics dashboards, asset management, and incident reporting modules.
- **Key Contributions:**
  - Developed interactive project analytics dashboards using **Vue.js**.
  - Implemented asset management and incident reporting features.
  - Integrated **Three.js** for 3D model comparison and **Mapbox GL** for visualizing site development progress.

FRONTEND AND MOBILE DEVELOPER, AUG 2020 – AUG 2021

2021 | JPID Buku

- Built a digital book application with interactive quizzes and rich media to improve user learning engagement.
- **Key Contributions:**
    - Developed an interactive mobile application using **Flutter**, incorporating rich media and quiz functionalities.
    - Integrated **iSpring Suite** for the quiz module.
    - Managed content loading, user progress tracking, and app store deployment.

2021 | JCORP HR Application (Leave Module)

- Developed a new Leave module within an existing Java mobile application, streamlining leave request and approval workflows to improve workforce management efficiency.
- **Key Contributions:**
    - Developed a Leave management module using **Java** for an Android application.
    - Integrated the module with existing architecture and backend APIs.
    - Managed the app store deployment lifecycle.

2020 | Technical Energy Audit System

- A web-based system designed for on-site data collection, analysis, and report generation, significantly improving the efficiency and accuracy of energy audits.
- **Key Contributions:**
    - Developed web UIs and data entry interfaces using **jQuery**.
    - Implemented client-side logic for data validation and analysis.
    - Integrated **RESTful APIs** to handle backend communication.

2020 | i-Baituna

- A mobile application with parental controls for managing children's phone usage, including internet scheduling, activity monitoring, and content filtering via a router-based method
- **Key Contributions:**
    - Developed an interactive mobile application using **Flutter**.
    - Designed the UI for managing schedules and monitoring device activity.
    - Integrated **RESTful APIs** for data communication.

EDUCATION

Universiti Teknologi Malaysia, Johor Bahru
Bachelor of Computer Science (Software Engineering), 2020

SKILLS

- **Geospatial & 3D Visualization:** Mapbox GL, MapLibre GL, CesiumJS, Deck.gl, Three.js (Basic)
- **Frontend Frameworks:** React, Next.js, Vue.js, Nuxt.js, Astro
- **Backend Frameworks:** Node.js, Express.js, Next.js (SSR & API Routes), Laravel (Basic)
- **Databases:** MySQL, Firebase, Prisma ORM, Sequelize

- **Client State Data & APIs:** Zustand, Redux, Pinia, TanStack Query, TanStack Router, Pusher
- **DevOps, Cloud:** GitHub Actions, Docker, DigitalOcean, Cloudflare
- **Frontend Tooling:** Vite, Webpack, jQuery
- **Mobile Development:** Flutter, React Native
- **Version Control & Management:** Git, Jira, Shortcut