Ajmal Musthafa

Software Engineer | Backend & Full-Stack Systems
Kochi, Kerala, India | Open to relocate
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Software engineer with 5+ years of full-time experience delivering full-stack products, backend services, and performance-sensitive applications. Hands-on experience with Rust, .NET, Kafka, Node.js, React, Flutter, and Go. Led development of industrial telemetry processing software, built interfaces for millions of data points, and reduced memory usage of a long-running application from more than 10 GB to ~500 MB. Brings system-level problem solving, cross-functional leadership, and end-to-end ownership across industrial software, fintech, and consumer products.

TECHNICAL SKILLS

Languages: Rust,, C++, Python, TypeScript, JavaScript, SQL

Backend & Systems: .NET, Apache Kafka, SignalR, REST APIs, Microservices, Real-Time Data Processing, Telemetry data processing, Linux development, Robot Operating System

Frontend & Visualization: React, Redux, Flutter, Three.js, Leaflet.js, SVG, Highcharts

Databases & Tools: PostgreSQL, MySQL, MongoDB, Redis, AWS, Git, CI/CD, Webpack, Lerna

Communication:: TCP/IP, UPD, OPCUA, UART, inter-process communication (IPC)

PROFESSIONAL EXPERIENCE

National Oilwell Varco, Kochi, Kerala — *Software Engineer*

June 2024 - Present

- Optimized a long-running application, reducing memory consumption from over 10 GB to approximately 500 MB (**~95% reduction**) during sustained operation exceeding 10 days.
- Developed a **Rust-based telemetry processing application** from the ground up, ingesting and processing sensor data from oilfield equipment.
- Built a high-performance telemetry visualization interface capable of displaying multiple charts containing **millions of data points** for analysis of large-scale sensor datasets.
- Developed and integrated **.NET microservices** using **gRPC** for efficient inter-service communication and **Apache Kafka** for asynchronous event-driven messaging..
- Developed a **SignalR-based backend** enabling real-time collaboration for applications used in oil rig operations.
- Provided **Level 3 (L3) production support** for client deployments, investigating and resolving **production incidents**, debugging issues in live environments, and troubleshooting software failures affecting oil rig operations.
- Developed interactive **3D and geospatial visualizations** using **Three.js, SVG, TypeScript, and Leaflet.js**, including oilfield equipment visualizations, coiled tubing representations, and location tracking of containers and trucks..

Paycepaid, Australia (Remote) — *Software Engineer*

June 2023 - June 2024

- Implemented centralized cross-domain authentication across multiple applications, consolidating sign-in workflows.
- Built recurring payment and bank mandate workflows to automate collections and reduce manual follow-up.
- Integrated Yodlee Open Banking to automate bank statement retrieval and debit-payment eligibility analysis, reducing analysis time by 10–15%.
- Integrated Stripe, PayFurl, Fat Zebra, and GoCardless with collector-specific payment configurations.
- Introduced CI/CD workflows for testing and deployment, reducing development time by 20%.
- Managed a Lerna monorepo and developed a shared design library across applications, improving consistency and reducing development time by 10%.

Coinedone Tech, Kochi — Software Engineer

August 2022 - May 2023

- Led development of social-media monitoring features that analyzed sentiment trends and identified potentially harmful content on children's devices.
- Built child-monitoring backend services with Node.js and Go, improving suspicious-activity detection speed by 40%.
- Optimized an Android child launcher, reducing crashes by 20%; integrated geofencing and improved tracking through Android accessibility capabilities.
- Enhanced a Flutter parental-control app using Google Maps, Firebase Cloud Messaging, Intercom, Instabug, and Mixpanel; reported 40% better product analysis and 25% higher engagement.

Kaimly Technologies, Kochi — Co-founder, Lead Fullstack Developer

April 2021 - May 2022

- Developed a browser-based CAD editor with Figma-like functionality, releasing the first version within three months.
- Recruited and managed a team of developers and designers, guiding execution and product delivery.
- Led development of Doodhman, a milk-product delivery platform.

Fullstack Engineer, Kochi —*Freelance Software Engineer (Part-Time)* | *Self-Employed*

June 2018 - December 2020

- Built and shipped web and mobile products using React and Flutter for multiple clients.
- Developed utube.link (openinyoutube.com) , a deep-linking service that reached more than 100,000 monthly active users.
- Developed customer and partner apps for Fudiyo and a food-delivery application for Hackvisor Technologies.

SELECTED PROJECTS

Autonomous Desk-Organizing Robotic Arm | C++, ESP32, Stepper Motors, 3D Printing

- Designed and built a robotic arm to automate desk organization by picking and placing stationery items.
- Integrated stepper motors, servo-controlled gripper, and ESP32-based motion control with custom 3D-printed mechanical components.

Menophine — A database tool that supports both sql, nosql and key value pair databases

- Developed a local-first database management application using Rust, Tauri, React, and TypeScript, providing a unified interface for PostgreSQL, MySQL, SQLite, SQL Server, MongoDB, and Redis.
- Built database exploration, querying, and management functionality while keeping database interactions and user data local to the device.

Proofile — professional networking application

Built a professional networking mobile app that reached 40,000 active users and grew by approximately 5,000 users per month

EDUCATION

Bachelor of Computer Applications (BCA) | MES College Marampally, Kerala | 2018–2021