

Muhammed Adil Edavana Valappil

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SUMMARY

Full-stack Software Engineer with experience in building scalable web applications and AI solutions using **Node.js, React, Express.js, FastAPI, and Golang**. Skilled in microservices, REST APIs, Docker, and CI/CD. Currently based in the UAE with a **valid residency visa and Emirates ID**, available for immediate on-site opportunities.

EXPERIENCE

Software Developer

Aug 2025 – Present

Greentruth Technology

Dubai, UAE

- Developed full-stack applications using **Python**, and **JavaScript**, building web interfaces with **React** and backend APIs with **FastAPI/gRPC** for secure transaction management.
- Built interactive chatbots and API clients for distributed systems, handling **real-time operations**, authentication, and data processing.
- Implemented simulations for consensus algorithms and transaction validation scripts, integrating **databases** and **cryptographic libraries**.
- Collaborated on distributed ledger prototypes, improving **fault tolerance** and system scalability.

Software Engineer

May 2025 – July 2025

Cooe (Remote, Australia-based)

- Designed and deployed an automated stakeholder alert system triggered on new customer registrations, supporting platform scalability toward a **100K+ user base**.
- Resolved high-priority production bugs impacting performance for **1,000+ users**, significantly improving application stability.
- Reduced post-registration email delivery time by **90%** by optimizing the email automation pipeline.
- Developed and maintained scalable microservices in **Golang** and **Python** using **RESTful APIs**, **RabbitMQ**, and **async I/O** (e.g., **asyncio**).
- Integrated **JWT**-based authentication and OAuth for secure API access in user services.
- Optimized **PostgreSQL** queries and schema migrations using **SQLAlchemy**, reducing response times by 40%.
- Implemented a transactional number swap API with full audit logging and admin controls, supporting encryption and secure validation workflows.

Software Engineer Intern – GenAI Edge Deployment

May 2024 – July 2024

Intel Corporation

Bangalore, India

- Developed and deployed a large language model (LLM) chatbot pipeline on Intel CPUs, leveraging **OpenVINO™** for model optimization and accelerated inference.
- Automated conversion, quantization, and deployment of LLMs for efficient GenAI applications on consumer edge hardware.
- Built a customizable **Gradio web UI** enabling real-time interactions with LLMs and configurable inference parameters.
- Demonstrated expertise in **LLM fine-tuning**, **pipeline automation**, and **low-latency deployment** of advanced models.
- Integrated model lifecycle processes into CI/CD using **GitHub Actions** and optimized inference workflows.

Data Analyst Intern

Aug 2023 – Sept 2023

Al Wafaa Group

Dubai, UAE

- Built an automated ETL pipeline to analyze **3,000+** customer records, enabling upselling and retention insights.
- Automated lead qualification and CRM workflows using **Python**, reducing manual effort by 70%.
- Designed real-time interactive dashboards using **IBM Cognos** and **Python**, optimizing marketing data transformation.

Research Intern

Jul 2024 – Sep 2024

National Chung Cheng University

Taiwan

- Developed software pipelines for processing and analyzing **hyperspectral imaging (HSI)** data using **Python** and ML frameworks.

- Applied best practices for data integrity and reproducibility while managing imaging datasets and experimental workflows.
- Reviewed and synthesized findings from **peer-reviewed AI/ML research** in agriculture, environment, and mining.
- Enhanced skills in **data preprocessing, model training**, and technical documentation for publication.

PROJECTS

QuickEval – AI Answer Sheet Evaluator (GitHub)

- Built full-stack web app with **React.js**, **Node.js**, and **MongoDB** to automate exam grading.
- Integrated **OpenAI API** for scoring, feedback, and analytics reports with confidence metrics.

Crashchain – Digital Forensics Platform (GitHub)

- Engineered microservices backend using **FastAPI**, **RabbitMQ**, and **Docker Compose** to manage forensic data.
- Implemented authentication with **JWT** and secured APIs behind API Gateway proxies.
- Utilized **PostgreSQL + SQLAlchemy ORM** to persist and query data efficiently.

FoodBot – LLM-based WhatsApp Chatbot (GitHub)

- Developed chatbot with **FastAPI**, **asyncio**, and **RabbitMQ** for concurrent message processing.
- Implemented Docker-based, scalable deployment with error logging and CI/CD hooks.

World Economic Data Platform (GitHub)

- Built dashboards with **IBM Cognos** and synced **Flask REST APIs** to fetch and visualize macroeconomic indicators.

LedgerTrue – Anomaly Detection Dashboard (GitHub)

- Developed backend with **FastAPI** and integrated CI/CD for auto-deployment using GitHub Actions.
- Enabled **JWT-based** secure login and role-based access control.
- Used **ORM (SQLAlchemy)** to manage data and handle transactional uploads.

TECHNICAL SKILLS

Languages: Python, Go, JavaScript, SQL, C, Shell

Frameworks: FastAPI, Flask, Node.js, React.js, Next.js

Database & ORM: PostgreSQL, MongoDB, SQLAlchemy, Django ORM

DevOps: Docker, Docker Compose, GitHub Actions, CI/CD, Linux CLI, Git, Kafka, RabbitMQ, Pub/Sub

Security & API Mgmt: OAuth2, JWT, API Gateway, HTTPS, Rate Limiting

Cloud: AWS (Elastic Beanstalk, WAF, Shield, CodePipeline)

Tools: IBM Cognos, OpenVINO, Jupyter, VSCode

EDUCATION

Saintgits College of Engineering

Bachelor of Technology, Computer Science and Engineering

2021 – 2025

Kerala, India

ACHIEVEMENTS

Winner – Yukthi 2024 Hackathon (GPT automation bot)

Runner-up – FrostCode Hackathon (chatbot development)

Top 4 Finalist – EY CTF Challenge (Cybersecurity + ML)

Research Internship – Fully funded at CCU Taiwan; published 2 review papers on ML and AI in HSI