

Adhul Das M K

Full Stack Developer(python,Angular)

Full Stack Engineer specialising in Python backend (FastAPI/Django/Flask) and Angular dashboards , building scalable device-to-cloud IoT platforms . Experienced in event-driven architectures (Kafka, MQTT, Redis) and AI anomaly detection for real-time monitoring and predictive alerts. Skilled in Docker, Kubernetes, CI/CD , and AWS/DigitalOcean deployments for stable production systems.

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WORK EXPERIENCE

Software Engineer

Nuventure Connect Pvt Ltd

08/2022 - Present Kochi, Kerala, India
IT servicing and software development company, which mainly focus on IOT product development

- Led development of IoT water-treatment products, owning end-to-end delivery from architecture to production deployment.
- Built an IoT web dashboard for data visualization, automation, and remote monitoring using Python (Flask), Angular, MQTT, MongoDB, and InfluxDB (time-series DB) .
- Designed and implemented system architecture + database design , and contributed to embedded firmware development for device integration.
- Managed CI/CD pipelines (GitLab) and worked closely with DevOps on production operations , including server access (SSH), Docker, and Docker Swarm deployments.

PROJECT

IOT Pool automation - Nosupone V2 (06/2022 - 12/2025)

- Smart controller to **monitor & control pool equipment**
- Ensures **water quality, maintenance & automation**
- **Remote monitoring & control** via Mobile App + IoT Dashboard

Terra X (10/2025 - Present)

- Industrial controller with **Relay + Modbus integration**.
- Scheduling & automation tasks and **RTOS-based architecture** (queue + priority-driven).
- **Blue-Green OTA updates** for safe upgrades.
- Supports **multi-container deployment + orchestration**.
- Remote control + real-time parameter monitoring.

Nuwave (06/2024 - Present)

- Developed a **production-grade IoT platform** for **real-time pool monitoring, remote control, scheduling, and automated water quality management** via mobile app and web dashboard.
- Built scalable **Python backend services (FastAPI and Flask)** and integrated **MQTT-based device communication** for telemetry ingestion and command execution.
- Implemented an **event-driven architecture using Kafka + Redis** for high-throughput data streaming, low-latency updates, caching, and alert workflows.
- Integrated **AI anomaly detection models** to identify abnormal sensor/device patterns (pH/ORP/chlorine/temperature) and trigger predictive maintenance alerts.
- Orchestrated analytics and automation using **Apache Airflow DAG pipelines** , deployed with **Docker + Kubernetes/Docker Swarm + CI/CD** on **AWS/DigitalOcean** for scalable and stable production operations.
- **Apache airflow DAG** engine to trigger the workflow based on trigger conditions.
- Developed the **frontend dashboard using Angular** , enabling real-time visualisation, device control, alerts, and analytics views.

SKILLS

Frontend technologies: CSS3, HTML5, Angular, React

Programming languages: Python, C, Embedded C

Influx DB, Mongo DB, SQL

Cloud services: AWS, Digital Ocean, Azure

CI/CD practices and management

System architecture

IoT development

Data visualization

Web frameworks: Flask, Fast API, Django

Python, Angular and React

Database management: SQL, MongoDB, InfluxDB, Redis

Container orchestration

Microservices architecture

Data processing tools: Apache Airflow, MQTT

Embedded C ,RTOS and Linux operating system(yocto)

Agile methodologies

ACHIEVEMENTS

Played for kerala cricket team

Became rising star of the year on 2025 (Nuventure connect Pvt Ltd)

EDUCATION

Mahatma Gandhi University B.Tech Electronics and Communication Engineering (06/2014 - 05/2018)
CGPA : 6.64

Higher Secondary Education(HSE) XI and XII standard (06/2012 - 03/2014)
Percentage : 74.86%

SSLC (X standard) (06/2011 - 03/2012)
Percentage: 70%

LANGUAGES

English
Full Professional Proficiency

Hindi
Native or Bilingual Proficiency

Malayalam
Native or Bilingual Proficiency

INTERESTS

Gaming

Playing cricket

Reading

Music