

Muhammed Shibil

Python Full Stack Developer

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Professional Summary

Full Stack Engineer specializing in Python (Django/FastAPI) and React.js. Proven expertise in architecting scalable microservices, deploying cloud-native applications on AWS via Kubernetes (K3s), and engineering AI-driven (RAG) ecosystems. Passionate about delivering secure, production-ready solutions and solving complex engineering challenges.

Technical Skills

Languages: Python, JavaScript (ES6+), HTML5, CSS3, SCSS

Frontend: React.js, Redux Toolkit, Tailwind CSS, Bootstrap, Styled Components, WebRTC, Google OAuth

Backend: Django, FastAPI, Django Channels (WebSockets), Microservices, RESTful APIs, Celery, Celery Beat, JWT, Razorpay

AI & Search: LangChain, RAG Pipelines, Google Gemini, Groq (LLaMA), ChromaDB

Databases: PostgreSQL, DynamoDB, Redis, Firebase

DevOps & Cloud: Docker, Kubernetes (K3s), Traefik, Nginx, GitHub Actions (CI/CD pipeline), AWS (EC2, RDS, SQS, Lambda, SES), Vercel, Render

Testing & Tools: Pytest, Postman, Swagger/OpenAPI, Cloudinary, Git, GitHub, Black, Flake8, Isort

Work Experience

Bridgeon Solutions LLP

06/2025 – Present

Python Full-Stack Developer (Intern)

Kozhikode, Kerala

- Architected and deployed 4 full-stack applications (2 major, 2 minor) utilizing **Django**, **FastAPI**, and **React.js**, taking ownership of the end-to-end software development lifecycle from system design to production.
- Actively contributed to **Agile / Scrum workflows**, including sprint planning and daily stand-ups, ensuring efficient team coordination and timely feature delivery.
- Refined technical **communication and teamwork skills** through regular project presentations, collaborative code reviews, and cross-functional problem solving.

Projects

MyCalo AI — AI-Powered Native Calorie Tracking Ecosystem

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- Architected a containerized **microservices** architecture orchestrating **Django** (Core Backend), **FastAPI** (AI Engine), and **Django Channels** (Real-time Service) using **Docker** Compose, with **Nginx** acting as the **API Gateway**.
- Provisioned cloud infrastructure on an **AWS EC2** instance using a **K3s Kubernetes cluster** and **Traefik** Ingress Controller, deployed the frontend to **Vercel**, and automated workflows via **GitHub Actions CI/CD** pipelines.
- Built a responsive frontend with **React** and **Redux** Toolkit, securing the platform with **JWT blacklisting**, **Google OAuth**, and Admin **MFA** via **Google Authenticator**.
- Managed **DynamoDB** for highly scalable chat history storage and integrated **Cloudinary** for secure media sharing.
- Utilised **WebSockets**, **Redis**, and **WebRTC** to build a low-latency telemedicine interface for real-time chat and peer-to-peer video consultations.
- Engineered a **RAG**-powered AI assistant using **LangChain**, **ChromaDB**, and **Groq (Llama)** APIs, while integrating **Google Gemini APIs** specifically for text-to-calorie and image-to-calorie analysis pipelines.
- Worked with **AWS SQS** and **Lambda** to build an event-driven architecture, routing transactional emails through Amazon **SES** and push notifications via **Firebase**.
- Configured **Celery** and **Celery Beat** for scheduling asynchronous background tasks, including automated notification reminders and processing Chat media messaging.
- Conducted unit testing with **Pytest**, enforced code quality (**Black**, **Isort**, **Flake8**, **Swagger**), and ensured backend reliability utilizing atomic database **transactions**, **custom signals**, **middleware**, and strict **HTTP status codes**.

XenFit — Full-Stack E-commerce Platform for T-Shirts

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- Architected a decoupled full-stack application using *React.js* and *Django REST Framework (DRF)* with **JWT**-based authentication.
- Implemented a secure authentication system with **OTP-based** account verification, **access / refresh token rotation**, and **SMTP-based** password recovery.
- Integrated **Razorpay Payment** Gateway with server-side signature verification and automated order status synchronization.
- Designed an advanced inventory system supporting product variations (size / color) with real-time stock updates.
- Deployed backend on **AWS EC2** using **Nginx** and **Gunicorn** for scalable API handling.
- Configured PostgreSQL on **AWS RDS** for production-ready data persistence.
- Secured the platform with a custom domain, **SSL / TLS (Certbot)**, and **CORS / CSRF** protection.

Student Learning Management System (SLMS)

[GitHub](#)

- Built a full-stack Django-based SLMS with separate student and mentor roles.
- Implemented a Mentor Approval Workflow where student accounts remain pending until mentors approve or reject them, including automated confirmation emails.
- Developed CRUD operations and bulk semester updates using Django ModelFormsets.
- Designed a responsive UI using HTML and Tailwind CSS with a PostgreSQL backend.

Education

Bachelor's Degree
Calicut University, Fathima Arts and Science College

06/2022 – 03/2025
Malappuram, Kerala

Languages

English | Malayalam | Tamil