Shahtaz Rahman Shanto

Software Engineer

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Full-stack Software Engineer with 3 years of experience building scalable backend systems and AI-powered applications. Experienced with Python, Django, FastAPI, distributed workflows, multi-tenant SaaS architecture, RAG, and agentic AI systems.

SKILLS

- **Languages:** Python, TypeScript, JavaScript, C++
- **Backend:** Django, FastAPI, Node.js, Celery, REST APIs, GraphQL
- **Frontend:** React, Next.js
- **Cloud & Infrastructure:** AWS (EC2, S3, CloudFront, Lambda), Google Cloud Platform, Firebase, Docker, Redis
- **Databases:** PostgreSQL, MongoDB, pgvector
- **AI & Systems:** Google ADK, RAG, Vector Databases (Pinecone, Vertex AI), WebSockets

PROFESSIONAL EXPERIENCES

Software Engineer (L2) — Echologyx Ltd.
March 2024 – Present

- Developed scalable backend services for an AI-powered chatbot platform using Django, including multi-tenant architecture, subscription management, and Stripe integration.
- Redesigned the conversational AI system using FastAPI, Google ADK, and Pinecone, optimizing context handling to improve response accuracy and reduce token usage.
- Integrated Messenger, WhatsApp, Instagram and Amazon SES, implementing webhook processing, asynchronous workflows, and reliable message delivery.
- Developed an optimized vector-search solution for parsing and retrieving relevant products and variants for chatbot's recommendation system

MERN Stack Developer — Aaykori Digital
July 2023 – December 2023

- Contributed to an affiliate marketplace CMS, enabling dynamic product listings, campaign tracking, and admin analytics.
- Developed HRM modules for employee data management and real-time performance dashboards.
- Implemented secure REST APIs and reusable React components, improving development speed and maintainability.

PERSONAL PROJECTS

Argon Chatbot: Multi-Tenant Agentic AI Chatbot SaaS

- Built a multi-tenant agentic chatbot SaaS with workspace isolation, and configurable chatbots.
- Implemented RAG using PostgreSQL + pgvector for document ingestion, chunk retrieval, and knowledge-grounded responses.
- Integrated business workflows including lead scoring, appointment booking, human handoff, and external communication channel.

Tech stacks: Python, Django, Google ADK, PostgreSQL, pgvector, Celery, Redis, Django-Channel, Docker, Stripe, Cloudflare/R2

Live Link Backend Codebase

Tourtoise: AI-Powered Travel Planning Platform

- Built a multi-agent travel platform for destination discovery, itinerary generation, and personalized trip planning.
- Designed RAG-based destination Q&A using structured travel data, PostgreSQL, and pgvector.
- Developed agent workflows for traveler preference collection, day-by-day planning, budgeting, and contextual travel guidance.

Tech stacks: Python, Django, Google ADK, Gemini, PostgreSQL, pgvector, Docker

Live Link Backend Codebase

EDUCATION

B.Sc. in Materials and Metallurgical Engineering, Bangladesh University of Engineering and Technology (**BUET**) — **Graduated** at **2021**

ACHIEVEMENTS

- Solved 125+ algorithmic problems on LeetCode
- Achieved 1420+ rating (2 star) on CodeChef