

Sagnick Das

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Professional Summary

Backend and AI Infrastructure Engineer with production experience building scalable REST APIs, containerized AI pipelines, and cloud-deployed systems on AWS. Shipped systems serving 500+ users with 1,500+ monthly requests; proficient in Python, FastAPI, Docker, and AWS ECS/ECR. Experienced in concurrent inference systems, LLM deployment, and memory-optimized cloud pipelines. Solved 150+ LeetCode problems with strong DSA fundamentals.

Skills

Backend & Infrastructure

- Python, JavaScript, Java, SQL · FastAPI, Flask, Express.js
- Docker, AWS (ECS, ECR), PostgreSQL, MongoDB
- REST API design, JWT, Role-Based Access Control (RBAC)

AI/ML & Tooling

- LangChain, Hugging Face, LLM integration, Async inference
- TensorFlow, TFLite, PyTorch, Scikit-learn
- RAG, ChromaDB, Vector DB, Semantic Search

Experience

Freelance Software Engineer

July 2025 – September 2025

- Architected and deployed 2 production web apps (React + FastAPI) serving 500+ active users end-to-end.
- Engineered REST APIs handling 1,500+ monthly requests with optimized routing, validation, and structured error handling.
- Reduced client content deployment time by 98% (48 hrs → 30 min) by building automated admin update pipelines.
- Owned full cloud infrastructure lifecycle: DNS, SSL provisioning, and AWS deployment with zero downtime.

Ardent Computech Pvt. Ltd.

June 2025 – August 2025

Java Developer Intern

- Architected full-stack e-commerce platform in Java with JWT authentication and granular role-based access control (RBAC) for secure multi-tier user management.
- Integrated Razorpay payment gateway with end-to-end checkout flow, webhook event handling, and payment failure recovery logic.
- Engineered separate admin and customer-facing portals with role-specific workflows, enabling independent management of inventory, orders, and user data.

Projects

Hanarecruit: AI Resume Screener

[GitHub](#)

- Built an ATS-inspired resume screening engine that parsed resumes and generated weighted candidate scores in seconds, enabling recruiters to shortlist candidates 5× faster.
- Architected a cloud-native deployment pipeline with Docker, AWS ECS, ECR, ALB, and automated CI/CD, delivering scalable container orchestration and one-command production deployments.

Neurodevelopmental Disorder Classification System

[GitHub](#) · [Live](#)

- Engineered semaphore-based concurrent inference pipeline for safe parallel request handling; prevented resource exhaustion by dynamically loading/releasing TFLite interpreters.
- Containerized full ML pipeline (preprocessing → TFLite inference → response) with Docker; deployed multi-architecture classifier (ViT, CNN, LeNet) via Flask.

CodeGenX: Autonomous Coding Agent

[GitHub](#)

- Built LLM-powered autonomous agent (OpenRouter + open-source models) modifying 25+ files across codebases via natural language with multi-step orchestration.
- Implemented persistent SQLite memory for cross-session contextual reasoning, enabling coherent long-horizon task execution.

Research Automation Platform

[GitHub](#)

- Built multi-stage RAG pipeline for ingesting and semantically indexing research papers; achieved millisecond retrieval latency via ChromaDB vector store.

Adversarial Evasion and Defense Analysis in ML-Based Malware Detection

[GitHub](#)

- Boosted adversarial robustness from 48% to 79% via adversarial training on 29,000+ samples; achieved 83% baseline detection accuracy with hybrid feature selection.

Education

MCKV Institute of Engineering

2022 – 2026

B.Tech. in Computer Science (Data Science) GPA: 8.41/10.0

Certifications

- BCG Gen AI Virtual Intern (2025)
- Building RAG Chatbots (2025)
- Introduction to LLMs (2024)
- Introduction to AI — IBM (2024)