Amithesh Sathish

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Summary

Fresh grad **AI Engineer** with proven experience building and deploying AI solutions at scale. Specialized in LLM fine-tuning, RAG pipelines, and GenAI applications, with hands-on skills in PyTorch, LangChain, HuggingFace, and AWS. Delivered measurable improvements in performance, latency, and automation. **US citizen**

Education

The University of Iowa — Iowa City, IA
Bachelor of Science in Computer Science — *June 2025*
Relevant Coursework: Database Systems, Data Structures & Algorithms, Theory of Computation, Probability & Statistics, Linear Algebra, Software Development

Core Skills

- **Programming & Tools:** Python, SQL, JavaScript, Java, C++, Bash, HTML, React.js
- **AI/ML & Data:** PyTorch, scikit-learn, HuggingFace, LangChain, LangGraph, LLM fine-tuning, RAG, embeddings, Pandas, NumPy, Apache Spark, ETL, REST APIs, MySQL, PostgreSQL, OpenAI SDK
- **Cloud & DevOps:** AWS (EC2, Lambda), Docker, Terraform, GitHub Actions, GitLab, Git, Flask, Streamlit

Certifications

DeepLearning.AI Prompt Engineering — AWS Cloud Practitioner — Edureka AI/ML — Udemy Agentic AI — OpenAI API

Experience

Capgemini — New York, NY
AI Engineer Intern — Dec. 2024 – Present

- Developed **Agentic AI solutions** with OpenAI SDK, automating workflows and cutting client process time by **25%**.
- Fine-tuned **LLMs** and optimized **RAG pipelines**, boosting GenAI accuracy by **45%**.
- Optimized **AWS EC2/Lambda infrastructure**, reducing API latency by **20%** for 100k+ users.
- Built **Spark ETL pipelines** with PostgreSQL, cutting batch time from 5 hrs → 3 hrs and improving reliability **15%**.

Warner Music Group — New York, NY
ML Engineer Intern — Nov. 2023 – Mar. 2024

- Developed **ML models** predicting album/single rankings on 100GB+ data, enhancing campaign targeting accuracy.
- Automated ad-targeting strategies, reducing customer acquisition cost by **20%**.
- Applied regression and ensemble methods (XGBoost, Random Forest), improving predictive accuracy by **30%**.
- Built Spark + Pandas pipelines, cutting data processing time by **40%**.

Projects

OpenAI Projects (GitHub)

- Built apps using **GPT APIs**, **LangChain**, and **RAG** for **summarization**, **Q&A**, and **chatbots**.
- Scaled document retrieval with **Pinecone/FAISS**, achieving latency ¡200ms.

AI Assistant Portfolio

- Developed a custom **AI assistant** using GPT-4, LangChain, and HuggingFace.
- Implemented **RAG pipeline** for real-time Q&A on projects, skills, and experience.

Awards & Leadership

- National Society of Black Engineers – Active Member (2023–Present)
- Dean's List, University of Iowa – 2023
- Hackathon Winner: GenAI Track, University of Iowa – 2024
- Led 3-person team for AI prototypes in campus AI club

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