

Armaan Amatya

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EDUCATION

University of Houston

Bachelor of Science in Computer Science and Mathematics

Houston, TX

Aug. 2024 – Dec. 2026

EXPERIENCE

Algoverse — <https://algoverseairesearch.org>

Aug. 2025 – Present

Machine Learning Research Intern

Remote

- Researching causal representation learning methods, aimed for submission to ICLR 2025 Workshops
- Prototyped novel attention mechanisms in PyTorch for parameter-efficient fine-tuning on domain-specific datasets, achieving measurable performance gains over baseline LLaMA models
- Designed robust data preprocessing pipelines for multi-modal research datasets (text, protein sequences, vision) and refactored prototype research codebases into modular, reproducible repositories with CI/CD, enabling paper-ready experiments

AI Agent Stealth Startup

May 2025 – Present

Fullstack AI Software Engineer

Remote

- Owned the end-to-end development of an Agentic Data Analysis platform for Ecommerce Stores, architecting a multi-agent system with Google ADK and LangGraph to automate repetitive data analysis tasks, saving 10+ hours weekly
- Developed a full-stack web app with React 18, TypeScript, and FastAPI, using MongoDB and GCP; deployed via Docker on GCP with 99.9% uptime, handling 1,000+ daily records
- Orchestrated context engineering, reducing hallucinations by 50% and boosting multi-step task completion rates by 30%

MyMCAT.ai — <https://mymcat.ai>

Aug 2024 – Apr 2025

Software Engineering Lead

Houston, TX

- Collaborated with a team to build an AI-driven MCAT prep platform serving 1,000+ students, gamifying learning through AI personalization
- Developed an intelligent tutoring system with NextJS, TypeScript, and Supabase

FuseMachines — <https://fusemachines.com>

May 2024 – Aug. 2024

Machine Learning Engineer Intern

New York, NY

- Built a Python NLP pipeline with scikit-learn, spaCy, and NLTK, productionized with Flask to analyze 1200+ software engineering requirements, saving the company \$2000 annually by decreasing project lead times
- Engineered BERT-based dependency extraction for requirement lists, improving project planning efficiency by 37%

F1Soft International — <https://f1soft.com>

May 2023 – Aug. 2023

Software Engineer Intern

Remote

- Optimized REST APIs in Java Spring Boot for an investment platform, reducing latency by 50% through query optimization and caching
- Implemented a secure, stateless authentication system in Spring Boot with Spring Security and JWT, integrated with Supabase, and validated using Postman

PROJECTS

Qie | App

Python, PyQt, Demucs

- Open-source contributor to Windows builds of Qie software, an alternative to FL Studio

Insider Signal | App

Python, TypeScript, React, PostgreSQL, OpenAI

- Launched a web app tracking stock purchases by insiders, using LLMs to analyze SEC filings and inform trading

TECHNICAL SKILLS

Languages: Python, C, C++, Java, JavaScript, TypeScript, SQL

Frameworks: ReactJS, NextJS, NodeJS, ExpressJS, Spring Boot, React Native, Expo, FastAPI, Flask, Material-UI

Databases: MySQL, PostgreSQL, MongoDB, Supabase, Redis, Pinecone, DynamoDB

AI/ML: Pytorch, TensorFlow, LangChain, LangGraph, vLLM, HuggingFace

Tools: Google Cloud Platform, Postman, Power BI, Git, Docker, Jira