

Abhay Shah

abhay.shah@columbia.edu | [linkedin.com/abhay](https://www.linkedin.com/in/abhay) | github.com/abhay | New York, NY

EDUCATION

Columbia University in the City of New York

Master of Science, Applied Analytics

New York, NY

Dec 2024

University of Mumbai

Bachelor of Science, Computer Science

Mumbai, India

May 2021

LANGUAGES AND SKILLS

Languages: Java, Python, JavaScript, TypeScript, SQL, HTML, CSS

Tools/Frameworks: Spring Boot, React.js, MongoDB, MySQL, Express.js, Next.js, PostgreSQL, MongoDB, REST API, Jenkins, Git, Docker, Kubernetes, CI/CD, LangChain, Large Language Models

Certification: AWS Certified Cloud Practitioner (Amazon Web Services)

EXPERIENCE

Teidore

Software Engineer Intern - Fullstack

June 2024 – August 2024

Remote - New York, NY

- Deployed the company's first **LLM-based** solution for internal use, with logging and auditing mechanisms, reducing on-call alerts by 33%.
- Implemented a 3D builder using **Three.js and WebGL**, enabling product customization, which increased user engagement by 25%.
- Integrated **Jenkins and Docker**, automating CI/CD pipelines and containerizing applications, which streamlined the development workflow and reduced development time by 15%.

Tata Consultancy Services - Digital

Software Engineer - Backend

July 2021 – Sept 2022

Mumbai, India

- Reduced **processing times for workflows by 40%** by developing REST APIs using **Spring Boot, Kafka, and AWS**, ensuring seamless data exchange through test-driven development.
- Decreased **database query times by 10%** by engineering scalable backend solutions using **Hibernate, Docker and Kubernetes** which facilitated efficient data processing, storage, and retrieval.
- Improved **API response times by up to 25%** through the design and execution of comprehensive test cases and unit testing using JUnit and Mockito, focusing on effective **payload compression**.

PROJECTS

HealthLlama - Fine-tuning LLMs with Kubernetes | Python, GCP, Docker, Kubernetes, Llama3, LLM

- Fine-tuned **llama 3** using Google Cloud Platform (GCP), leveraging **Docker and Kubernetes** for scalable deployment, and implemented Weights and Biases for experiment tracking and logging.
- Conducted a comparative analysis between the fine-tuned **HealthLlama** and the vanilla llama 3 model, demonstrating significant improvements in performance on healthcare-specific NLP tasks, achieving a **BLEU score** improvement of 15%.

EasyShop - Full Stack Ecommerce | React.js, Express.js, Redux, Node.js, MongoDB

- Developed and deployed a fully-featured eCommerce platform, featuring a **dynamic shopping cart, product pagination, user profile and admin management**.
- Used **Redux for state and session management and designed RESTful APIs** to connect the front-end and back-end services. Used JWT for secure login and registration processes.
- Implemented secure payment solutions with **PayPal API** and developed eCommerce operations.

ACHIEVEMENTS

- Participated in Oracle-TCS Hackathon, developing a blockchain-based solution to track and verify the authenticity of supply chain data.
- Gained **2.2k+ subscribers** on a coding-focused YouTube channel, sharing tutorials and project walkthroughs to help others learn programming.
- Mentored 30+ students in data structures and algorithms as an undergraduate mentor at the University of Mumbai.