

Chaitya Shah

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EDUCATION

Columbia University - Fu Foundation School of Engineering and Applied Science	New York, NY
Master of Science in Data Science	Aug 2025 - Dec 2026
University of Mumbai - Dwarkadas J. Sanghvi College of Engineering	Mumbai, India
Bachelor of Technology in Computer Engineering GPA: 8.76/10	Dec 2021 - May 2025

EXPERIENCE

SimPPL	New York, NY
Founding AI Engineer	Aug 2023 - May 2025
<ul style="list-style-type: none">Spearheaded a team of 4 to launch an AI-powered audience analytics MVP, scaling it to a pilot with grants from Mozilla and Google (exploreCSR), helping New York Public Radio boost engagement for 20K+ users.Engineered an AI Agent using LangGraph for our UNICEF-incubated tech venture to analyze 120k+ social media posts from Reddit, Telegram and YouTube delivering actionable insights on trending topics to stakeholders.Designed a predictive model that forecasts user clicks based on personas & trending topics, boosting CTR by 8%.Deployed full-stack AI pipelines on AWS, processing 1M+ user interactions to drive real-time content recommendations.	
Avrio Energy	Berlin, Germany
Data Science Intern	Jun 2024 - Jul 2024
<ul style="list-style-type: none">Optimized energy usage across 70+ McDonald's outlets in 22 countries by engineering a data pipeline to track appliance level consumption and visualize real-time insights via Power BI, reducing operational costs by 15%.Automated real-time fault detection with Airflow alerts and a 92% accurate XgBoost model, cutting energy waste by 20%.	
Indian Institute of Technology Patna	Patna, India
Research Intern	May 2023 - Nov 2023
<ul style="list-style-type: none">Designed a fraud detection system on 250k+ Ethereum transactions using Graph Neural Networks (Temporal GATs) and Directed Random Walks to classify fraudulent nodes based on behavioral patterns, achieving 85% accuracy.	
Infihel	Mumbai, India
Artificial Intelligence Intern	Jun 2023 - Sep 2023
<ul style="list-style-type: none">Engineered a RAG-based mental health chatbot with LangChain & Haystack, fine-tuned LLaMA on 500k+ user chat transcripts to handle sensitive user queries, reducing hallucinations and increasing user retention by 12%.Deployed scalable ML architecture on AWS with Terraform & Docker, reducing manual setup time by 5+ hrs/week.	

LEADERSHIP

Columbia University Teaching Assistant - Natural Language Processing (COMS 4705)	Sep 2025 - Present
<ul style="list-style-type: none">Mentored 8 graduate project teams (172 students), guiding research on LLM fine-tuning, RAG, and model interpretability.Led weekly office hours and assisted with assignments and grading for transformer architectures, pretraining, and RL.	
DJS Antariksh Coding Head	May 2022 - Oct 2024
<ul style="list-style-type: none">Represented India in 6 International Competitions, leading a 30-member coding department. Developed autonomous systems for space robotics, finishing 3rd at International Rover Challenge 2024 and 2nd at European Rover Challenge 2023.Trained junior members, co-authored system design and technical documentation to support competition qualification.	

PUBLICATIONS

- Chaitya Shah, et al. "Can Social Media Platforms Transcend Political Labels? An Analysis of Neutral Conservations on Truth Social". International AAAI Conference on Web and Social Media 2024. <https://doi.org/10.36190/2024.17>
- C Shah, et al. "Sentence Restructuring with User-Controlled Difficulty using NLP". International Conference on Computing, Communication and Networking Technologies 2023, IEEE. <https://doi.org/10.1109/ICCCNT56998.2023.10307165>

PROJECTS

GenAI-Powered Financial Advisory Platform
<ul style="list-style-type: none">Analyzed 100K+ financial data points to generate personalized savings insights; fine-tuned GPT-Turbo and integrated a FAISS vector database for document retrieval, improving recommendation accuracy by 16%.
Economic Policy Impact Analyzer
<ul style="list-style-type: none">Built an end-to-end ML system to assess the effect of Indian government policies on stock volatility by processing 10k+ news articles using NLP and an LSTM model, achieving 87% accuracy in identifying policy-driven market movements.Estimated a statistically significant causal impact of 0.15 on volatility (p = 0.04) using Causal Machine Learning.

SKILLS

Programming & Web: C/C++, Python, Java, SQL, R, MATLAB, JavaScript, React, Typescript, Django, Flask, FastAPI
Machine Learning: Numpy, Pandas, Matplotlib, Scikit-Learn, Keras, LangChain, TensorFlow, PyTorch, OpenCV, NLTK
Databases, Analytics & Cloud: PostgreSQL, Redis, Power BI, BigQuery, GCP, AWS, Docker, Linux, Nginx