

Jeet Shah

Quantitative Developer

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Education

Columbia University

Sep 2026 – Expected Dec 2027

M.S. Computer Science, Network Systems Pathway · New York, NY

Current coursework: Operating Systems I, Computer Networks, Analysis of Algorithms.

FLAME University

Aug 2021 – May 2025

B.Sc. (Hons.) Computer Science; PG Diploma in Interdisciplinary Studies · Pune, India

CGPA: 8.9/10; merit scholarships covering 25% (2021–2024) and 60% (2024–2025) of tuition.

Engineering and Financial Experience

Voltek AI

Oct 2024 – Aug 2026

Software Engineer (Part-time)

- Replaced join-heavy process storage with three indexed PostgreSQL tables, transactional writes, and validated backfills; reduced observed query latency from 3–20 seconds to under 500 ms.
- Built a Next.js research assistant with four model providers, document retrieval, web search, citations, streamed responses, and chat history.
- Co-maintained NDAX and Neware ingestion pipelines with file reconciliation and defensive parsing.
- Led frontend development for an internal battery-research platform serving 10–100 [Nanoloy](#) users.

Analyse India

May 2022 – Aug 2022

Technical Intern

- Built Python tools to collect and normalize Google Finance and Yahoo Finance data for National Stock Exchange-listed companies.
- Backtested trading strategies, calculated returns and technical indicators, and implemented candlestick-pattern detection and alerts in MetaStock.

Selected Systems and Research Projects

Project Euler Algorithm Journal

[Coursework & code](#)

- Documented implementations and optimization iterations across 52 numbered problems, including prime sieves, prefix sums, caching, and dynamic programming.

JJDB and Distributed Systems Coursework

[Database](#) · [Clocks](#)

- Built a C++ command-line database with schema files, CSV loading, record operations, and column indexes; implemented Lamport and vector clocks in Python to study causality and event ordering.

Nilakan Programming Language

[Documentation & Playground](#)

- Implement Nilakan with Prajas Naik; language fundamentals designed by Prof. Aamod Sane.
- Implement the parser, static checks, interpreter, runtime diagnostics, CLI, documentation, and browser playground using TypeScript, Chevrotain, Monaco, and Playwright.

INSAT-3D Precipitation Nowcasting

[Thesis & code](#)

- Built satellite-data caching, temporal-window generation, and ConvLSTM training/evaluation pipelines in Python, TensorFlow/Keras, OpenCV, and HDF5.
- Reduced six-hour forecast RMSE by 30.7% against a Lucas–Kanade optical-flow baseline; undergraduate thesis supervised by Kaushik Gopalan (2025).

Research Experience

Centre for Interdisciplinary AI, FLAME University

Jan 2024 – May 2025

Research Assistant

- Co-developed nowcasting training/data pipelines and administered a multi-user GPU server.

Space Applications Centre, ISRO

May 2023 – Aug 2023

Research Intern

- Developed ConvLSTM nowcasting models with satellite data in an air-gapped HPC environment.

Technical Skills

Languages and systems: Python, C++, Rust, SQL, TypeScript, Linux, Docker, TCP, HTTP/1.1.

Data and modelling: PostgreSQL, NumPy, TensorFlow/Keras, PyTorch, OpenCV, HDF5.