

Jeet Shah

Data Scientist

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Education

Columbia University

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

Sep 2026 – Expected Dec 2027

FLAME University

B.Sc. (Hons.) Computer Science; PG Diploma in Interdisciplinary Studies · Pune, India
CGPA: 8.9/10.

Aug 2021 – May 2025

Research Experience

Centre for Interdisciplinary AI, FLAME University

Research Assistant

Jan 2024 – May 2025

- Co-developed ConvGRU, conditional-GAN, and ConvLSTM training pipelines and satellite-data ingestion tooling for precipitation nowcasting.

Space Applications Centre, ISRO

Research Intern

May 2023 – Aug 2023

- Developed ConvLSTM precipitation-nowcasting models with INSAT-3D satellite data in an air-gapped high-performance computing environment.

FLAME Mathematical Modelling Centre

Student Researcher

Oct 2022 – Apr 2023

- Implemented genetic algorithms and variational autoencoders; evaluated synthetic sample generation on imbalanced classification and protein datasets.

Applied Data Experience

Voltek AI

Software Engineer (Part-time)

Oct 2024 – Aug 2026

- Built a battery-research assistant with document retrieval, web search, citations, streamed responses, and chat history across four model providers.
- Redesigned PostgreSQL process storage with indexed tables, transactional writes, and validated backfills; reduced observed material-query latency from 3–20 seconds to under 500 ms.

Analyse India

Technical Intern

May 2022 – Aug 2022

- Collected and normalized data for National Stock Exchange-listed companies in Python; backtested trading strategies, calculated returns and indicators, and implemented candlestick-pattern alerts in MetaStock.

Selected Modelling Work

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 Outputs

Weather4Cast, team kaubega: First on the 2024 core-challenge leaderboard; second in the 2025 cumulative-rainfall task.

- Co-author, [Computationally-efficient deep learning models for nowcasting of precipitation](#) (Weather4Cast 2025), arXiv:2511.11197. *Preprint*.
- Co-author, [A conditional Generative Adversarial network model for the Weather4Cast 2024 Challenge](#), arXiv:2412.00451. *Preprint*.

Technical Skills and Relevant Coursework

Programming and data: Python, R, SQL; NumPy, PostgreSQL, OpenCV, HDF5.

Modelling: TensorFlow/Keras, PyTorch, ConvLSTM, ConvGRU, conditional GANs, variational autoencoders, genetic algorithms.

Evaluation: Forecast RMSE, optical-flow baselines, trading-strategy backtesting.

Completed coursework: Probability and Statistics, Applied Multivariate Statistics, Advanced Machine Learning.