



Suvir Shah

Bachelor of Technology

Computer Science and Engineering

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech., CSE	National Institute of Technology, Patna	7.48/10	2028
Senior Secondary	St. Michael's High School	90.3%	2022
Secondary	St. Michael's High School	89.3%	2020

• Project A:House Price Prediction using Machine Learning

Nov 2024 – Dec 2024

Tools: Python, Scikit-learn, Pandas, NumPy



- Built an end-to-end regression pipeline on the California housing dataset using RandomForestRegressor, handling missing values, feature scaling, and categorical encoding.
- Serialized the trained model and preprocessing pipeline to enable fast inference on new housing data without retraining.
- Visualized feature importances and error distribution to understand key drivers of house prices and model behavior.

• Project B:Programming Lecture Video RAG Pipeline

2026

Tools: Python, Whisper (large-v2), Ollama (bge-m3), scikit-learn, Pandas/Joblib, FFmpeg



- Converted videos→MP3 (FFmpeg), transcribed Hindi CP lectures to timestamped JSON chunks (Whisper large-v2)
- Generated bge-m3 embeddings for all chunks via Ollama API, saved scalable Pandas/joblib index.
- Built cosine similarity retriever returning top-5 chunks by video/timestamp for LLM prompting.
- CLI answers "which video has [solution]" with precise mins:sec guidance.

SKILLS

- Programming Languages: C++17, Python 3.11, JavaScript , SQL, Java
- Technologies :React/Next.js, Node/Express, MongoDB, PyTorch, scikit-learn, Whisper, Ollama (bge-m3), Tailwind CSS, REST APIs
- Tools :FFmpeg, Pandas/Joblib, Git/GitHub, VS Code, FFmpeg, LeetCode/Codeforces, Vercel

CERTIFICATIONS

• Code With Harry, The Ultimate Job Ready Data Science Course

Feb 2026

ACHIEVEMENTS

- JEE Mains 99 percentile
- Codeforces rating 1000 plus (400+ problems solved incl. Take U Forward)
- Built ML RAG search engine for Programming lecture videos (Whisper + Ollama)