

# Megh Dave

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## Education

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### Dwarkadas J. Sanghvi College of Engineering

Bachelor of Technology in CSE (Data Science), Honors in Computational Finance.  
CGPA:8.93

08/2023 – present  
Mumbai, Maharashtra

## Experience

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### ML Research Intern

IIT Bombay

06/2025 – Present

- Identified modeling limitations in existing transpiration studies and proposed an inverse PINN framework using temporal data to estimate latent plant parameters.
- Integrating LSTM inspired time encoding and TimeGAN based noise injection to enhance generalization and robustness under sparse or noisy observations.

## Projects

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### JigyasaAI: Multimodal Retrieval-Based Chatbot

Built an LLM-powered document intelligence system enabling users to upload PDFs and perform contextual Q&A over unstructured content. Implemented multimodal retrieval to return both relevant text and visual references, leveraging embedding-based search for accurate and comprehensive responses.

Tech Stack: CLIP, ChromaDB, Cloudinary, Streamlit

### OOPS!IDidntStudy: Last-minute study platform

PanicNotes: Developed an AI-based system to ingest and consolidate content from multiple document formats (PDF, DOCX, PPTX) into structured, coherent summaries for efficient review.

CramBot & Quizzard: Built LLM-driven modules for contextual Q&A over user documents and automated quiz generation to support content understanding and evaluation.

Tech Stack: AI Agents, NLP, Deep Learning, FastAPI

### CyberSecure

Full intrusion-detection pipeline analyzing 1M+ network logs with 99%+ recall. Features CSV/PCAP ingestion, real-time Wireshark capture, anomaly detection dashboards, Merkle-tree blockchain for immutable logging, and GenAI-driven threat summaries.

Tech Stack: Python, Supervised ML, AI Agents

### LawTune

Fine-tuned the Gemma-2B model for legal-domain tasks across 22 Indian languages using Unsloth and free Google Colab resources, while experimenting with multiple fine-tuning strategies to achieve an optimal balance between LoRA and QLoRA for performance and efficiency.

Tech Stack: Python, PyTorch, Hugging Face, Unsloth, LoRA/QLoRA, Google Colab, NLP, Deep Learning

## Achievements

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- 2x Hackathon Winner
- 2nd Runner-Up at DJS Sanshodhan 2025.

## Skills

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**Languages** – HTML, CSS, Python, SQL, Javascript

**Frameworks** – Flask, FastAPI, Bootstrap, Tailwind CSS

**Database/Cloud and Version Control** – SQL, VectorDB, Cloudinary, Git, GitHub, Docker, NoSQL DB

**AI & Machine Learning** – Machine Learning, Deep Learning, Generative AI, and Supervised Learning applied to document understanding, unstructured data analysis, semantic retrieval, NLP, data pipelines, and production-grade model deployment.

## Certificates

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AWS Academy Graduate - AWS Academy Machine Learning Foundations

AWS Academy Graduate - AWS Academy ML with NLP Foundations

## Co- Curriculars

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### DJS Compute

AI/ML Mentor

08/2025 – present

Mentoring juniors in ML and AI through core concepts, hands-on projects, and best practices, helping them build practical skills and real-world problem solving confidence.