Dheeren Tejani

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Summary

Final-year B.Sc. Artificial Intelligence student with proven experience in building and optimizing end-to-end Machine Learning and Deep Learning systems. Hands on Experience with PyTorch, TensorRT, and full-stack deployment using FastAPI and React. Seeking to apply skills in Computer Vision and AI System Engineering to solve challenging real-world problems.

Education

B.Sc. in Artificial Intelligence, Vivekanand Education Society, Mumbai   Jun 2023 – Apr 2026 (Expected)
12th Board (Commerce), Smt. CHM College of Arts, Science & Commerce Jun 2021 – Mar 2023 (Completed)

Skills

Languages: Python, JavaScript/TypeScript
AI/ML: PyTorch, TensorRT, Computer Vision, NLP, Super-Resolution, Model Optimization
Deployment: FastAPI, Streamlit, Docker, Git, MLflow
Web Dev: React.JS, TypeScript, Tailwind CSS
Data/Tools: NumPy, Pandas, OpenCV, Matplotlib

Projects

AI Super-Resolution System (Image + Video)   *PyTorch, TensorRT, FastAPI, React*
- Engineered an end-to-end video enhancement suite that achieved a **12× inference speedup** on an RTX 3050 (4GB VRAM) by optimizing a CNN/GAN model with TensorRT, multithreading, and GPU offloading techniques.
- Developed and deployed a full-stack application with a React frontend and FastAPI backend for real-time, low-latency image and video upscaling.

Diabetic Retinopathy Detection   *Python, Computer Vision, Streamlit*
- Fine-tuned a ResNet50 classifier on the APTOS 2019 dataset, achieving **near 75% accuracy and a Quadratic Weighted Kappa of 0.80** for retinal image severity classification.
- Integrated **Grad-CAM overlays** and interactive severity charts into a Streamlit dashboard to improve model interpretability for potential clinical use.

Cyberpunk Stable Diffusion Fine-Tune   *PEFT (LoRA), bitsandbytes*
- Fine-tuned the Stable Diffusion 1.5 model by applying Low-Rank Adaptation (LoRA) on a custom-curated dataset to generate high-quality, **cyberpunk-style images**.
- Implemented parameter-efficient training (PEFT) techniques with 'bitsandbytes' to enable fine-tuning on consumer-grade, low-VRAM GPU (16 GB VRAM T4 GPU).

Other Activity (Hackathon)

Odoo Hackathon: Led the development of a StackOverflow-style Q&A prototype, implementing Google OAuth for user authentication and building the core application logic using Python and JavaScript