Aman Nindra

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Education

University of California, Merced Merced, CA
Bachelor of Science in Computer Science and Engineering

Technical Skills

Languages: Python, JavaScript, HTML/CSS, Typescript, Tailwind CSS
Frameworks & Tools: React, React Native, Node.js, Flask, Firebase, Tailwind, PyTorch, OpenCV, Jupyter Notebook
Certifications: Facial Classification with PyTorch, Certified Entry-Level JavaScript Programmer, Introduction to Computer Vision and Image Processing, Getting Started with Flutter
Leadership: Project Manager for Machine Learning Club

Experience

Social Media Manager June 2023 – Present
Hotpot.ai *Online*

- Managed and curated content on Twitter and Reddit to boost user engagement
- Conducted analysis on trending stocks to optimize social media strategy and increase viewer engagement
- Experimented with various posting formats and times, identifying patterns that increased views significantly
- Collaborated with a team to strategically integrate quotes and financial analysis, enhancing content quality

Projects

AI-Resume | *Python, Flask, React.js, Tailwind CSS, Firebase* June 2025 – Present

- Built a **containerised full-stack web app** that reviews résumés with GPT-4 and returns concise, structured feedback plus matching job listings.
- Designed a RESTful **Flask** backend that *(i)* converts PDFs to text with `pdfminer` / `pdf2image`, *(ii)* queries OpenAI for analysis, *(iii)* exposes upload and health endpoints secured by CORS
- Automated job-listing refresh via **APScheduler**: every 10 min an `Apify` crawler scrapes new postings; results are pushed to **Firebase Realtime Database** for instant UI updates.
- Developed a responsive **React + TypeScript** front-end (Vite, Tailwind CSS) that lets users upload résumés, view AI feedback, and browse fresh job matches.

ASL Voice Assistant | *Convolutional Neural Networks, Next.js, Tailwind CSS, PyTorch, onnxruntime* June 2025

- Built an interactive web demo that **recognises American Sign Language (A–Z)** and carries on a real-time, voice-enabled conversation whose tone adapts to the user's detected emotions.
- Trained a CNN in **PyTorch**, exported to ONNX, and ran inference client-side with **onnxruntime-web** — achieving >90 FPS on desktop without server calls.
- Streamed webcam frames to **Hume AI** to extract top-3 emotions every second; injected the results into prompts so the assistant replies empathetically.
- Leveraged **Vapi** for full-duplex voice: instant transcription, GPT-4 response delivery, and low-latency TTS playback, all within the browser.
- Designed a modern UI in **Next.js (App Router)** with Tailwind CSS and Radix primitives; added animated subtitle track and pulsing voice orb for accessibility.

Realtime Image Classifier | *Python, PyTorch, CNN TorchVision, OpenCV, CUDA, Jupyter* June 2025

- Fine-tuned a **ResNet-18** on the Kaggle Cats & Dogs dataset; reached **98.6% validation accuracy** after a single epoch using Cyclic Learning Rate scheduling and data-augmentation.
- Built a **real-time webcam demo**—OpenCV streams video frames to a TorchVision preprocessing pipeline and overlays live "cat"/"dog" predictions at 30 FPS.
- Packaged reproducible workflows in Jupyter notebooks (`catvsdogResnet18.ipynb` for training, `runcamera.ipynb` for live testing) and exported model weights to `model.pt` for effortless reuse.
- Published installation script (`requirements.txt`) enabling one-command setup with **torch**, **torchvision**, **opencv-python**, Pillow, NumPy, Matplotlib, and tqdm.