

Aman Nindra

linkedin.com/in/aman-nindra-1b3634270 — US Citizen

EDUCATION

University of California, Merced

Expected May 2027

B.S. Computer Science & Engineering

Merced, CA

- **Coursework:** Data Structures, Advanced Programming, Linear Algebra, Calculus I–III, Probability & Statistics

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C++, Dart, HTML/CSS

ML/AI: PyTorch, TensorFlow, scikit-learn, OpenCV, NumPy, pandas, YOLO (Ultralytics), Transformers (Hugging Face)

Frameworks/Cloud: React, Next.js, React Native, Flask, Firebase, AWS, Vercel

Certifications: Computer Vision and Image Processing, Supervised Machine Learning: Regression and Classification, JSE – Certified Entry-Level JavaScript Programmer

EXPERIENCE

Software Engineering Intern

Sep 2025 – Present

Arrowz (Mental Health Startup)

Remote

- Shipped cross-platform **Flutter/Dart** app for emotion tracking across 25+ screens; modular UI components cut duplication **40%**.
- Standardized state management and responsive layouts; improved build stability and developer velocity across the team.

Project Manager, Code Agent

Nov 2025 – Present

UC Merced Machine Learning Club

Merced, CA

- Scoped and led **Code Companion**, an AI-powered Python debugging tool that ingests GitHub repos, runs **flake8/mypy**, and suggests LLM-generated fixes with explanations.
- Defined MVP, metrics, and phased roadmap for Next.js + FastAPI + pgvector stack, coordinating backend and frontend milestones with the team.

Project Manager, Research Copilot

Nov 2025 – Present

UC Merced Data Science Society Club

Merced, CA

- Managed a RAG-based research assistant that ingests PDFs/arXiv links, runs hybrid BM25 + embedding search, and answers questions with citation-grounded quotes.
- Designed system architecture (Next.js, FastAPI, Postgres + pgvector) and evaluation plan focusing on answer quality, latency, and pilot user feedback.

PROJECTS

ASL Voice Assistant — Next.js, PyTorch, ONNX, Hume AI, Vapi

June 2025

- A–Z ASL recognition with emotion-aware voice chat; **ONNX Runtime** enables client-side inference at **90 FPS**.
- Trained CNN in **PyTorch** with augmentation and mixed precision; exported to ONNX with dynamic axes.
- Built Next.js UI (App Router, Tailwind) with accessible components and graceful fallbacks for camera/mic permissions.

Real-time Image Classifier — Python, PyTorch, ResNet-18, OpenCV

June - August 2025

- Fine-tuned ResNet-18 on Cats vs Dogs to **98.6%** validation accuracy; used cyclic LR and label smoothing.
- 30 FPS webcam inference via OpenCV pipeline (resize/normalize, softmax thresholding, class overlay).
- Reproducible training scripts and Jupyter notebooks; automated environment setup with **requirements.txt**.

AI-Resume Analyzer — Python, Flask, React, TypeScript, Firebase, OpenAI API

June - July 2025

- Containerized full-stack app that ingests PDFs and returns structured, role-aligned feedback with job matches.
- RESTful **Flask** service: PDF parsing via **pdfminer**, input validation, rate limiting, and CORS-secured endpoints.
- Realtime updates to Firebase; typed React UI that highlights skills gaps and exports notes to Markdown.

UCM Trip AI Agent — Next.js, TypeScript, Google Gemini, Google Maps, Vercel

Nov 2025

- Natural-language trip planning using Gemini + Maps Grounding; parses intent and constraints to build candidate routes.
- Dynamic stop matching across **7+** routes using Haversine distance and snapping to road geometry for realism.
- Secure API routes for geocoding and distance matrix; deployed on Vercel with interactive map and ETA breakdowns.