

GARV DANWANI

AI Systems Engineer | Computer Vision & Voice AI | Real-Time Systems
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PROFESSIONAL SUMMARY

AI Systems Engineer who builds production AI, not proof-of-concepts. Founding engineer (1 of 5) at Project No. 21, a government-incubated healthtech startup, owning voice AI, computer vision, and infrastructure end-to-end. Cut latency on a multi-provider voice AI pipeline by 40%+ (open-source models, Bhashini, Sarvam AI, NVIDIA Riva/NIM on RunPod/AWS EC2). First Division B.Tech, CS (Data Science).

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript

Voice AI & NLP: faster-whisper, Qwen3-8B (vLLM), Kokoro TTS, Silero VAD, RAG (ChromaDB), Bhashini NMT, Sarvam AI, NVIDIA Riva/NIM

Computer Vision: rPPG, CHROM & POS algorithms, MediaPipe FaceMesh, FFT signal analysis, HRV metrics

ML & Backend: Scikit-learn, Random Forest, FastAPI, WebSockets, WebRTC

Cloud & Data: AWS EC2, RunPod, Docker, Git, PostgreSQL, Pandas/NumPy

Frontend (secondary): React.js, Next.js

ENGINEERING EXPERIENCE

AI & ML Engineer, Project No. 21

Jan 2026 - Present

Full-Time | New Delhi, India | Founding Team (1 of 5)

Computer Vision & Healthcare AI

- Built an rPPG-based contactless monitoring platform (CHROM & POS algorithms, MediaPipe FaceMesh, FFT/HRV signal processing) estimating cardiovascular indicators from a standard camera; improved signal stability ~25-30%.
- Navigated the CDSCO regulatory pathway (HTA, QMS, clinical evaluation licensing); converted a government regulatory session into an internal compliance brief for the team.

Voice AI Systems (Real-Time)

- Designed a real-time, multilingual (Hindi/English/Bhojpuri) voice AI pipeline (ASR → NMT → LLM → TTS); cut end-to-end latency from ~10-15s to ~5-8s and LLM latency from ~4-8s to ~2.1-2.3s.
- Built a multi-provider architecture (faster-whisper, Qwen3-8B/vLLM, Kokoro TTS, Bhashini, Sarvam AI, NVIDIA Riva/NIM) across RunPod/AWS EC2 GPU infrastructure to remove single-provider dependency and optimize time-to-first-token.

Systems & ML Integration

- Built a FastAPI/WebSocket backend for live data streaming with React.js/Next.js monitoring dashboards; integrated Random Forest models for physiological proxy estimation (blood pressure, glucose trends).

INDEPENDENT PROJECTS

OmniFlix: Unified Movie, TV & Anime Recommendation System

Machine Learning | Recommender Systems | Data Engineering

- Built a hybrid recommendation engine (content-based + collaborative filtering, Scikit-learn/LightFM) across a unified IMDb, TMDb, and MyAnimeList dataset, addressing cold-start scenarios and validated through similarity/ranking analysis.

Pronunciation Evaluation Pipeline

NLP | Speech Processing | Phonetics

- Built an end-to-end name-pronunciation evaluator (CMUdict/phonemizer G2P, custom edit-distance PER scoring, wav2vec2 phoneme recognition benchmarked against allosaurus); surfaced a circular-evaluation flaw in the ground truth and shipped it as a FastAPI service.

EDUCATION

Greater Noida Institute of Technology (GNIOT), AKTU

Oct 2022 - Jun 2026

B.Tech, Computer Science & Engineering (Data Science), Greater Noida, India | First Division

Mount Carmel School (CBSE), New Delhi — Class XII (2022) & Class X (2020)

CERTIFICATIONS & RECOGNITION

Beta Tester, Sarvam CODE (Sarvam AI EPOCH, 2026) • Smart India Hackathon 2024 • Programming with Generative AI (NPTEL) • Data Analytics with Python (NPTEL) • Microsoft AI Essentials (LinkedIn Learning) • Deloitte & Tata Job Simulations

Languages: English, Hindi