

ADITYA SINGHAL

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SUMMARY

Full-stack & AI engineer with production experience shipping distributed, multi-service systems (21+ microservices, sub-200ms APIs) and real-time ML pipelines. Pairs engineering depth with an MBA in Business Analytics. Targeting Software Engineer / AI-ML Engineer roles at large-scale tech companies.

EXPERIENCE

Netpy Technologies — AI + Full-Stack Developer Intern

Aug '25 – Aug '26

Bangalore, Karnataka

- Built and deployed 3+ production web applications (React + Django REST Framework), integrating ML inference pipelines into backend services handling real-time requests.
- Engineered frontend components to visualize AI model outputs in real time, reducing manual review cycles by ~35%.
- Implemented end-to-end AI/ML features — prediction workflows and automated data pipelines — improving operational efficiency across client-facing applications.

Teevra Studios — Gen AI Artist (Remote)

May '26 – Present

- Delivered production-quality visual assets for corporate clients by engineering repeatable, parameterized generative pipelines (Higgsfield, Firefly, Flux, Midjourney) across multi-asset campaigns.

PROJECTS

MentIQ — Tri-Platform AI E-Learning Ecosystem

Oct '25 – May '26

Django REST · React Native (Expo) · React + Vite · PostgreSQL · Redis · Elasticsearch

- Architected a distributed system across iOS/Android/web with 21 domain microservices and 17 API route groups, sustaining sub-200ms response times under real-time load.
- Designed the caching and search layer (Redis + Elasticsearch) and async job pipeline (Celery/Beat) powering adaptive study planners, flashcard generation, and full-text course search.
- Integrated an LLM tutoring service (Groq + Llama 3) with a per-course knowledge graph tracking quiz accuracy and time-on-task, plus a gamified leaderboard system with server-enforced rate limits.
- Deployed live virtual classrooms (Jitsi Meet) with real-time attendance sync and WebSocket chat, alongside Stripe payments, Cloudinary CDN, and Firebase OTP auth.

Kisan Sathi — AI Agritech PWA for Indian Farmers

2025

React 19 · TypeScript · Express · Gemini Vision · IndexedDB | github.com/adi-0903/Kisan-Sathi

- Built an offline-first, multilingual (English/Hindi/Punjabi) farming PWA spanning crop management, soil-health tracking, livestock/dairy logs, and finance/inventory records in a single SPA.
- Integrated Gemini Vision for photo-based crop-disease diagnosis and Gemini-driven spray advisories that combine live weather data with crop stage to time pesticide application.
- Persisted all farm data client-side via IndexedDB (idb-keyval) so the app stays fully usable without cellular reception, auto-syncing on reconnect; added an in-app agri-shop, mandi price feed, and transport-booking flow.

Real-Time Face Recognition & Emotion Detection

2025

Python · YOLOv8 · FaceNet · DeepFace | github.com/adi-0903/Face-Expression-Detector

- Combined YOLOv8 for real-time face detection/tracking with FaceNet embeddings for identity matching against a known-faces database, live on webcam video.
- Layered DeepFace on top to output dominant emotion and gender alongside recognized identity, with a temporal smoother reducing frame-to-frame prediction flicker.

AI Parking Analytics — Aerial Parking Occupancy Detection

Python · OpenCV · YOLOv8 | github.com/tubakhxn/ai-parking-analytics

- Built a computer-vision pipeline combining background subtraction, contour detection, and YOLOv8 to detect parked and moving vehicles in aerial/top-down drone footage.
- Auto-derived the parking slot layout directly from video geometry instead of hardcoded coordinates, then tracked per-slot occupancy across frames.

- Rendered live occupancy status and lot-level statistics as overlays on a compressed output video for at-a-glance monitoring.

EDUCATION

Lovely Professional University — B.Tech, Computer Science and Engineering

Aug '22 – Jul '26

Phagwara, Punjab · CGPA: 7.7 / 10

Lovely Professional University — MBA, Business Analytics

Aug '26 – Jul '28

Phagwara, Punjab

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C++, SQL

Systems & Backend: Django REST Framework, Node.js/Express, Microservices, REST APIs, Socket.IO, Redis, Celery, Elasticsearch, PostgreSQL, MongoDB, Firebase

Frontend & Mobile: React + Vite, React Native (Expo), TypeScript

AI / ML: TensorFlow, Keras, Scikit-learn, OpenCV, Hugging Face, NLP, Computer Vision, LLMs, Deep Learning, Reinforcement Learning

Tools & Infra: Git/GitHub, CI/CD basics, Docker (basics), Vercel, Power BI, Streamlit

CERTIFICATIONS

- Automation Associate Developer — ICT Academy
- Introduction to IoT — NPTEL