

# ANKUR PRATAP SINGH

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[Portfolio](#) | [LinkedIn](#) | [GitHub](#)

## SUMMARY

Computer Science undergraduate (AI specialization) who owns projects end-to-end, from model selection through production deployment. Built the referral and coupon system for a travel booking startup as a remote Full Stack Developer, and independently shipped five applications spanning healthcare, agriculture, travel, and business intelligence — including a crop-advisory platform built for Smart India Hackathon 2025 (SIH25010) that won Invertis University's Inverthon 2.0 hackathon. Comfortable across classical ML (Random Forest, XGBoost, Gradient Boosting), applied deep learning (CNNs), and full-stack engineering (FastAPI, Next.js, PostgreSQL).

## EDUCATION

### Invertis University, Bareilly, Uttar Pradesh, India

Bachelor of Technology, Computer Science & Engineering (AI) 2024 – 2028

- Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Machine Learning, Software Engineering, Operating Systems, Probability & Statistics

## TECHNICAL SKILLS

- **CS Fundamentals:** Data Structures & Algorithms, OOP, Complexity Analysis, DBMS (Normalization, SQL)
- **Machine Learning:** Random Forest, XGBoost, Gradient Boosting, CNNs (TensorFlow/TFLite), Model Validation
- **Engineering:** Python, FastAPI, Next.js, React, Prisma, REST API design
- **Cloud & Systems:** AWS (Lambda, S3, API Gateway), Supabase (Postgres, Auth, RLS), Vercel, Git/GitHub, Linux
- **Math Foundation:** Statistics & Probability, Linear Algebra (coursework)

## WORK EXPERIENCE

### Full Stack Developer (Remote, Unpaid)

TravelDekho Pvt. Ltd. May 2026 – Jul 2026

- Built the referral and coupon system for a travel booking platform (Express.js, Next.js, PostgreSQL): designed a tiered reward model where coupon value scaled with a referring user's account tenure and app usage, rather than a flat referral bonus.
- Owned user-handling logic tying referral codes to account records, ensuring long-tenured users' referrals earned meaningfully better coupons than new-user referrals.

### Travel Health Finder (MedLife) | Next.js 14, FastAPI, PostgreSQL, Google Maps API

[Live Demo](#) | [Source](#)

- Identified the problem via Razorpay's Fix My Itch platform; built a location-aware medical triage app that classifies symptoms and ranks nearby hospitals using live Google Maps and Apify-scraped clinic data.
- Built an LLM-based emergency classifier (Gemini) that reasons over user-described symptoms to detect true emergencies, rather than relying on keyword matching, and surfaces the nearest open ER with a direct call action.

### FasalAI — Smart Crop Advisory Platform 🏆 Inverthon 2.0 Hackathon Winner | React 19, FastAPI, scikit-learn, TensorFlow, Supabase

[Live Demo](#) | [Source](#)

- Built for Smart India Hackathon 2025 (SIH25010); won Invertis University's Inverthon 2.0 hackathon for this project, and it now sits at 3 GitHub stars and 2 forks from outside users.
- Benchmarked multiple models before finalizing a Random Forest (retrained across tree-count configurations to optimize  $R^2$ ) for top-3 crop recommendations, alongside a Gradient Boosting model for yield/price forecasting.
- Built 4 TensorFlow CNN disease-detection models; added a Gemini Vision pre-check to reject non-leaf images and a fallback path to mask free-tier backend latency.
- Localized the full platform across 11 Indian languages and integrated real government-scheme data (PM-KISAN, PMFBY, and 8 others) with direct apply links.

### Locoro — AI Travel Discovery Platform | Next.js 15, TypeScript, Supabase, Prisma

[Live Demo](#)

- Identified via Razorpay's Fix My Itch platform; combined Reddit-mined recommendations with OpenTripMap/OSM data so no local experience is missed — famous spots and hidden gems both surface in one search.
- Built city alias normalization (Varanasi/Kashi/Banaras, Bombay/Mumbai) so different users searching the same place by different names get identical, accurate results instead of fragmented cache entries.

### Tata Motors Sales Intelligence Platform | FastAPI, XGBoost, Chart.js

[Live Demo](#) | [Source](#)

- Owned the ML pipeline for a sales forecasting platform built with a collaborator over 7 global markets' 2015–2024 data: model training, evaluation, and tuning.
- Trained a Gradient Boosting Regressor scoring  $R^2=0.9953$  on a 70:30 train/test split, with 8.45% MAPE on held-out data.

**IPL Playing XI Predictor** | *Python, Pandas, SQLite, Streamlit*

[Live Demo](#) | [Source](#)

- Built a constraint-first team-selection engine enforcing official IPL rules (11 players, 4-overseas cap, minimum bowlers/keeper) across 2008–2025 historical player statistics.
- Designed three selection strategies (Aggressive/Balanced/Defensive) with role detection driven directly off raw CSV role text rather than hardcoded assumptions, avoiding misclassification of all-rounders as pure bowlers.

## ACHIEVEMENTS

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- Completed AWS Educate: Getting Started with Serverless (Amazon Web Services, 2023).

## LANGUAGES

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Hindi: Full Professional Proficiency | English: Professional Working Proficiency