

Keyur Chauhan

✉ keyurchauhan15@gmail.com — 📞 +91 93213 12409 — 🌐 keyur-chauhan- — 🔑 keyurc2332 — 🌐 Portfolio

Final-year B.Tech (IoT) engineer targeting ML and AI-agent roles, focused on model reliability — leakage detection, calibration, and grounded LLM pipelines. Shipped four tested, CI-gated ML systems; Best Paper Award for peer-reviewed published research.

Education

Thakur College of Engineering & Technology, Mumbai — B.Tech IoT (Major in Data Science) Graduated: June 2026
Dean's Scholar — CGPA: 9.5/10

Technical Skills

ML & Data Science: Python, scikit-learn, PyTorch, XGBoost, SHAP, Feature Engineering, Leakage Detection, Model Calibration, Cross-Validation, ROC-AUC

AI & LLM Systems: LangGraph, LangSmith, RAG, Agentic Pipelines, Prompt Engineering, Multi-Provider LLM Integration (Gemini, OpenAI), Claim Verification & Grounding Evaluation

Backend & Data: FastAPI, SQLAlchemy, PostgreSQL, Pandas, NumPy, SQL, TypeScript, Next.js, React, Streamlit

Cloud & MLOps: Docker, Airflow, GitHub Actions (CI/CD), GCP Cloud Run, Vercel, Railway, MQTT

Experience

AI Agent Development Intern – Suresh Dani Classes Feb 2026 – July 2026

- Engineered a RAG-based semantic retrieval pipeline for a psychometric platform processing 100+ profiles, cutting manual assessment time by ~70% with outputs validated for consistency against expert review
- Architected scalable FastAPI backend workflows deployed on Railway, achieving sub-500ms median inference latency across 500+ test profiles

Research Intern – Wadhvani Foundation

Sept 2025 – Dec 2025

- Built Pandas/NumPy cleaning and validation pipelines over 10,000+ entrepreneurial records, raising dataset completeness from 62% to 88% and surfacing recurring market patterns for downstream reporting
- Cross-checked reported figures against source data prior to publication, catching inconsistencies across 15+ quarterly research briefs

Projects & Research

ChessIQ: AI-Powered Chess Analytics & ML Platform

GitHub

Python, PyTorch, FastAPI, Streamlit, scikit-learn, XGBoost | [Live Demo](#)

- Investigated outcome prediction on 4,684 Chess.com games (332K+ plies); identified and eliminated three sequential data leaks that had inflated reported accuracy from an honest 53.5% (AUC 0.5001) to a leaking 78.21%, using chronological day-aligned splits and per-pool rating reconstruction
- Ran a 5-seed ablation across tabular, PyTorch LSTM, and hybrid architectures; shipped a calibrated FastAPI service (ECE 0.011) with 93 automated tests and an 8-page Streamlit dashboard

MarketIQ: Point-in-Time Financial Platform & Verified AI Analyst

GitHub

Python, FastAPI, PostgreSQL, Airflow, Next.js, TypeScript | [Live Demo](#)

- Designed a bitemporal price store enforcing as-of correctness on every read; built a dataset-level quality gate that caught a live currency-identity bug within hours of its first run against real market data
- Implemented LLM claim verification – checking every numeric claim in AI analyst responses against tool-call evidence – plus a grounding evaluation harness comparing model providers; 460 automated tests, CI-gated

IPL 2026 Winner Prediction: ML + Monte Carlo Simulation

GitHub

Python, XGBoost, scikit-learn, Streamlit, Plotly | [Live Demo](#)

- Built an ensemble model (XGBoost + Logistic Regression + Random Forest) on 18 seasons (1,175 matches) of ball-by-ball IPL data, engineering 49 features across Elo ratings, form, venue, and pitch conditions
- Validated with walk-forward backtesting: 52–55% accuracy, beating Elo-only (47–48%) and random (50%) baselines; ran a 2,000-iteration Monte Carlo simulation for championship probability distributions, deployed via Streamlit

Autonomous Data Analyst: Agentic ML Pipeline with Leakage Detection

GitHub

Python, LangGraph, FastAPI, scikit-learn, SHAP, Docker | [Live Demo](#)

- Built a LangGraph-orchestrated agent pipeline (clean → profile → plan → train → explain → reflect → report) that trains and evaluates models on arbitrary CSVs and refuses to report a conclusion the data can't support
- Implemented dual leakage detection (mutual information + linear reconstruction) catching 5 classes of silent failure across 9 public datasets; added prompt-injection guardrails and a 3-way-bounded agent retry loop

Publications & Awards

Smart Helmet: IoT-Based Accident Detection System

IC-CCDS 2025 — *Best Paper Award*

Co-authored peer-reviewed paper (team project) on real-time accident detection using sensor fusion with ML classification; trained a neural network to 96%+ accuracy on 10,000+ samples and implemented an MQTT-based emergency alert pipeline on Arduino.

Leadership

Chief Editor – Department Magazine Committee

2024 – 2025

Led a 40+ contributor team producing a 100+ page quarterly publication, owning the editorial calendar end to end

Class Representative – B.Tech IoT

2022 – 2026

Represented 80+ students; coordinated academic initiatives resulting in 3+ curriculum improvements