Rahul Chauhan

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Education

Indian Institute of Technology Roorkee 2023–2027

Experience

Tech Intern, Profcess (now Kokoro.doctor) May 2024 – July 2024

- Developed responsive front-end interfaces using JavaScript, HTML, and CSS.
- Built and optimized backend modules with Django to enhance performance.
- Resolved 5+ production bugs, improving backend stability and maintainability.
- Worked with SQL databases for efficient querying and reporting.
- Collaborated with cross-functional teams under tight deadlines to deliver full-stack features.

Projects

Reverse Supply Chain Optimizer GitHub Link

- Created a modular ML pipeline for predicting returns, estimating costs, and optimizing logistics.
- Integrated XGBoost for predictions, rule-based logic for logistics, and Google OR-Tools for inventory optimization.
- Unified all phases into a user-friendly Jupyter Notebook.
- **Skills:** Python, Machine Learning, Pandas, NumPy, OR-Tools, NLP

Multi-Agent Tutor Bot GitHub Link

- Built an intelligent tutor bot with a main agent and subject-specific sub-agents (Math, Physics, Chemistry).
- Used Gemini API and prompt engineering for LLM integration and domain understanding.
- Integrated tools like calculators and formula extractors to improve answer accuracy.
- **Skills:** Python, Gemini API, Multi-Agent Systems, CLI, LLMs

Auto Researcher – LLM-Powered Research Assistant GitHub Link

- Automated research workflow using a local Zephyr 7B model via Streamlit.
- Key features include arXiv search/summarization, PDF QA, insight extraction, and research question generation.
- Powered fully offline with no API costs; all LLM logic runs locally.
- **Skills:** Python, Streamlit, FAISS, RAG, HuggingFace Transformers, LLMs, LangChain, AI Agents

Flight Delay Prediction GitHub Link

- Developed binary and regression models to predict delay likelihood and duration using real-world flight data.
- Employed XGBoost, SHAP, and a custom OAI metric to enhance actionable prediction accuracy.
- Achieved 92.3% accuracy (classification) and 0.86 R^2 (regression).
- **Skills:** Python, Scikit-learn, XGBoost, SHAP, Streamlit, EDA, Explainable ML