



SAUMIL UPADHYAY

Full Stack Developer — Data Scientist — Software Engineer

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🐙 github.com/knull23

🌐 my-portfolio.vercel.app

Education

Indian Institute of Information Technology, Sonapat

B.Tech in Computer Science Engineering

2022 – 2026

Haryana, India

Technical Skills

Languages: Python, Java, JavaScript, C/C++, SQL, Golang

Web/Frameworks: React.js, Node.js, Express.js, Flask, Bootstrap, TypeScript, Next.js, TailwindCSS, HTML, CSS

Databases: PostgreSQL, MongoDB, SQLite, MySQL

Tools: Git, GitHub, Vercel, VS Code, PyCharm, Postman, Render, Jupyter, JWT, REST APIs, Linux

Concepts & Practices: Data Science, ML, DBMS, AI, OOP, Agile, API Design, CI/CD, SDLC, Debugging, Deployment

Achievements

Secured **95.6%** in 12th Grade (PCM), ranked in top 1%.

Scored **97.44 percentile** in JEE Mains with AIR **23,256** among 1M+ candidates.

Projects

Personal Finance Tracker (GitHub) | (Live Demo) | *Next.js, TypeScript, MongoDB, TailwindCSS* **Jul 2025**

- Built a full-stack multi-user finance dashboard to manage **10+ spending categories** and **1000+ transactions**
- Implemented **JWT-based authentication** with **bcrypt**-hashed passwords and **Nodemailer** for automated welcome emails.
- Integrated **MongoDB** with dynamic REST APIs using **app/api** routes in the Next.js **App Router**.
- Designed a responsive dashboard with **12+ interactive Recharts** for tracking trends, budgets, and cash flow insights.
- Deployed on **Vercel**; optimized API response times by **35%** through lean queries and client-side caching.

Enterprise Churn Prediction Platform (GitHub) (Live Demo) | *Flask, React.js, MongoDB, XGBoost* **Mar 2025**

- Built an ML pipeline using XGBoost and SHAP, achieving **83.89% accuracy**, **67.63% precision**, **75.40% recall**, and **89.95% AUC** for confident churn prediction.
- Developed a role-based (User/Admin) web app with JWT-secured React + Flask stack; stored prediction history in MongoDB.
- Integrated dashboards with dynamic plots, churn metrics, and SHAP insights; calibrated threshold (**0.54**) to balance FP/FN, accepting **135 false positives** to capture high-risk cases.
- Prediction probabilities spanned **2%-73%**, enabling granular, interpretable churn reasoning.

Certifications & Professional Training

IBM: Applied Data Science with Python – Level 2 | Credential Link **Sep 2025**

- Earned IBM-issued credential in Python for Data Science, covering data analysis and visualization.
- Applied libraries including scikit-learn, Matplotlib, and Bokeh for machine learning and visualization tasks.

JPMorgan Chase & Co.: Quantitative Research Simulation (Forage) | Certificate Link **Jul 2025**

- Analyzed a portfolio of loans to estimate customer default probabilities using quantitative research techniques.
- Applied dynamic programming to convert FICO scores into categorical risk buckets for predicting loan defaults.

Lloyds Banking Group: Data Science Job Simulation (Forage) | Certificate Link **Jul 2025**

- Built a churn prediction model using random forest (ROC-AUC: **0.82**) with GridSearchCV for hyperparameter tuning.
- Performed advanced preprocessing and feature analysis using pandas, scikit-learn, and matplotlib to generate actionable insights.

Quantium: Data Analytics Job Simulation (Forage) | Certificate Link **Jun 2025**

- Analyzed customer transaction data to extract insights and deliver commercial recommendations.
- Identified benchmark stores for uplift testing and created strategic reports for category planning.