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<u>Leet Code</u> <u>LinkedIn</u> GitHub



Saurabh Yadav

Technical Skills:

Python: ★★★☆☆C++: ★★★☆☆

Machine Learning: ★★★☆☆

NumPy: ★★★☆☆
 Pandas: ★★★☆☆
 Matplotlib: ★★★☆☆
 Scikit-Learn: ★★★☆☆

EDUCATION				
Board	Tenure	Educational institution	CGPA/Percentage	
B. Tech (CSE)Cyber	2022 –2026	VIT Bhopal University	8.14/10	
Class XII	2021 - 2022	St. Fidelis School, Aligarh	64.4%	
Class X	2019 - 2020	St. Fidelis School, Aligarh	80.3%	
PROJECTS			l	

Duration: April 2025

- Designed and implemented a scalable fraud detection system using PySpark to process large-scale credit card transaction datasets (143 MB), achieving a Test AUC of 0.9286, showcasing proficiency in handling big data for real-world applications.
- Applied machine learning techniques with a **Random Forest Classifier** and **SMOTE** to address class imbalance, improving recall for fraud detection by 15% compared to baseline models.
- Optimized data preprocessing pipelines with Pandas and PySpark, reducing processing time by 20% through efficient data cleaning and transformation, aligning with data science workflow needs.
- Evaluated model performance using 3-fold cross-validation, achieving precision, recall, and F1-score of 0.9993, with ongoing efforts to refine metrics for production readiness.
- Developed visualizations (confusion matrix, feature importance) using Matplotlib and Seaborn to support datadriven insights, enhancing collaboration with cross-functional teams.
- Initiated a CI/CD pipeline with GitHub Actions for automated linting (flake8) and testing (pytest), demonstrating early experience in deployment workflows.
- Managed project with Git for version control, ensuring reproducibility and code quality.

Key Skills: PySpark, Machine Learning, Random Forest, SMOTE, Data Preprocessing, Big Data, Python, Pandas, Matplotlib, Seaborn, Scikit-Learn, SQL (Basic), GitHub Actions, CI/CD, Data Visualization, Cross-Validation, AUC, Precision, Recall, F1-Score

EXPERIENCE

Unified Mentor

Credit Card Fraud

Detection using

PySpark and

Machine Learning

■ Remote Machine Learning Intern (September 24 – October 24)

- Collaborated on innovative projects in the field of Machine Learning, contributing to the development and optimization of algorithms for ML-applications.
- Designed and implemented an Animal Image Classification system and Forest Cover Type Prediction using different ML models in Google Colab notebook.
- Conducted data analysis and visualization to derive insights from complex datasets, aiding in decision-making processes for project strategies.
- Gained hands-on experience with various ML frameworks and tools, enhancing skills in Python, SVM, and image classification techniques.

CO-CURRICULAR

Coding	■ <u>Leet Code</u> – 40+ Questions solved <u>Hacker Rank</u> – 4 Star in C++
Patent	 Indian Patent granted for an innovative evaporative air conditioner design.

ADDITIONAL INFORMATION

Languages • English, Hindi