Siddharth Tripathi

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EDUCATION

VIT Bhopal University — Bhopal, MP
Bachelor of Technology in Computer Science and Engineering – CGPA: 9.05 — Nov 2022 – Present

A.P Narmada Higher Secondary School (CBSE) — Jabalpur, MP
Senior Secondary (12th) – 92.4% — July 2021

Christ Church Boys' Senior Secondary School (CBSE) — Jabalpur, India
High School (10th) – 92.8% — March 2019

TECHNICAL SKILLS

Languages: Python, C++
Frameworks/Libraries: TensorFlow, PyTorch, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, SciPy, Plotly
Tools & Platforms: AWS, Power BI
Databases: MySQL

PROJECTS

SubRedditorX | *Python, Streamlit, Selenium, Gemini, MongoDB*
- Built an automation system using Appium and Selenium WebDriver that simulates human interaction with the Reddit platform, completing post creation in under 45 seconds compared to 3-5 minutes manually..
- Designed a MongoDB schema for subreddit rules/post templates, ensuring bot compliance across 50+ communities.
- Architected the codebase with clear separation between UI and backend, reducing new feature implementation time from 2 days to 4 hours.

TalentLens | *Python, RAG, ChromaDB, FastAPI, Streamlit, Web Scraping*
- Designed a scalable retrieval-augmented generation (RAG) system that matches job descriptions to SHL assessments using embeddings, reducing HR decision time from 30 minutes to 6 minutes per role.
- Integrated ChromaDB vector database with production-grade embeddings by using Sentence-Transformers(all-MiniLM- L6-v2), achieving a great match accuracy against human expert selections.
- Deployed FastAPI on Render and Streamlit on community cloud architecture to independently scale for 200+ users (<20s latency).

Credit Card Anomaly Detection: | *Python, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn*
- Developed and compared anomaly detection models (Isolation Forest, Local Outlier Factor, SVM) on a 284,807-transaction Kaggle credit card fraud dataset, tackling severe class imbalance with fraud.
- Demonstrated expertise in advanced data analysis and anomaly detection by rigorously evaluating model precision and recall, optimizing fraud detection performance.
- Effectively handled extreme data imbalance and selected the most suitable machine learning technique for real-world credit card fraud scenarios.

CERTIFICATIONS

Advanced Learning Algorithms - NLL, TensorFlow, Decision Tree — Nov 2024
Deeplearning.AI

Supervised Machine Learning: Regression and Classification — Sept 2024
Deeplearning.AI

EXTRA-CURRICULAR ACTIVITIES

President, NULL VIT Bhopal Student Chapter — Jun 2024 – Present
Coordinated SECVIT 24, a national-level cybersecurity event with 1,200+ participants — *VIT Bhopal University*

Coordinator, Cultural and Sports Events (Advitya 2024) — Feb 2024
Planned and executed campus-wide cultural and sports events at university level — *VIT Bhopal University*