

SHISHIR AGARWAL

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Technical Skills

Languages: Java, C/C++, Python, JavaScript, SQL, HTML, CSS, PHP


Frameworks: React.js, NumPy, Pandas, Matplotlib, Scikit-learn, PyTorch, Tensorflow, Keras, NLTK, MySQL

Tools: Tableau, Google Cloud Platform(GCP), Amazon Web Services(AWS)


Core CS Skills: Data Structures and Algorithms, Database Management Systems, Computer Networking, Machine Learning, Cloud Computing, Data Analytics, Automation Frameworks, Database Management

Soft Skills: Leadership, Collaboration, Communication, Teamwork, Team Building, Problem Solving, Strong Ownership

Projects

Credit Card Fraud Detection | *Python, Scikit-Learn, Pandas, NumPy* | GitHub  **July 2024**

- Developed a novel hybrid model incorporating an Isolation Forest for anomaly scoring and an Autoencoder for feature engineering, which enhanced the predictive power of a Random Forest classifier.
- Achieved a superior F1-Score of 0.874, Precision Score of 0.944 and a Matthews Correlation Coefficient of 0.876 with the proposed model, outperforming all other implemented baseline models in identifying fraudulent transactions.
- Enhanced model performance by 22.8% in F1-Score and 21.1% in MCC over the Gradient Boosting Classifier, while significantly outperforming other baseline models like Logistic Regression and Decision Trees.

Automated Chatbot for Indian Income Tax Queries | *Python, NLTK, scikit-learn, TensorFlow, JSON* | GitHub  **Aug 2024**

- Developed and trained a deep learning chatbot using Python, Keras, and NLTK to provide instant responses to Indian Income Tax Return (ITR) queries.
- Engineered a text preprocessing pipeline for intent recognition, featuring tokenization, lemmatization, and Bag-of-Words (BoW) vectorization to prepare data for the neural network.
- Constructed and trained a sequential neural network using TensorFlow with Dense and Dropout layers for accurate intent classification, optimizing with Stochastic Gradient Descent (SGD).
- Implemented a context management system to handle conversational flow, enabling the chatbot to provide personalized ITR form recommendations based on user employment type.

Education

Vellore Institute of Technology, Bhopal **Aug 2022 – Present**
B.Tech in Computer Science and Engineering — CGPA: 8.83
Bhopal, India

City Montessori School, Lucknow **July 2022**
ISC Class 12th — Percentage: 94%
Lucknow, India

City Montessori School, Lucknow **July 2020**
ICSE Class 10th — Percentage: 96.33%
Lucknow, India

Certifications & Achievements

Cloud Computing (IIT Kharagpur) **May 2024**
Achieved Top 5% Topper Badge with a Silver Elite Certificate.

Machine Learning Specialization (Stanford Online, DeepLearning.AI) **July 2024 – Sept 2024**
Supervised Machine Learning: Regression and Classification by Stanford Online.
Advanced Learning Algorithms by Stanford Online.
Unsupervised Learning, Recommenders, Reinforcement Learning

Google Cloud Digital Cloud Leader Certified **Aug 2024**
Solved more than 250 DSA problems on LeetCode and GFG
Obtained the SQL 50 Badge on LeetCode

Leadership and Involvement

India Space Lab **June 2025 – July 2025**
Space Tech Intern *Remote*
Currently undergoing a nationally competitive training program in Space Technology after qualifying a merit-based entrance exam.
Receiving hands-on training across verticals including Drone Technology (Air Taxi), CanSat/CubeSat development, Rocketry, Remote Sensing (GIS), Astronomy, and Space Entrepreneurship.
Engaged in a live technical project simulating real-world space applications and official workflows.

FinTech Club **Jan 2024 – Oct 2024**
President *VIT Bhopal*
Led a team of 70 members, organizing and overseeing all club activities, meetings, and events.
Successfully conducted major events like FinGenAI Hackathon, StockQuest, and CodeQuest Finanza.
Directed the development of multiple software projects, enhancing the club's technical capabilities

Extracurricular Activities

GeeksforGeeks Student Chapter - Core Member **2023**
Managed and created content for various occasions and events.