Shishir Agarwal

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Education

Vellore Institute of Technology, Bhopal	**Aug 2022 – Present**
B.Tech in Computer Science and Engineering — CGPA: 8.96	*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*

Technical Skills

Languages: Java, C/C++, Python, SQL, HTM, CSS
Frameworks: Pandas, Matplotlib, 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, Database Management
Soft Skills: Leadership, Collaboration, Communication, Teamwork, Team Building, Problem Solving, Strong Ownership

Internship

UDAAN FOUNDATION	**May 2025 – June 2025**
Data Analyst Intern	*Remote*

- Analyzed financial and donor data to support strategic decision-making and optimize resource allocation.
- Helped improve fund utilization efficiency and enhanced donor engagement strategies through data-driven insights.
- Assisted in preparing performance dashboards, created cost analysis dashboards, created cost analysis reports, and contributed to impact measurement for programs.

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.

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

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.