

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

Scalable E-Commerce API Backend | *Java, Spring Boot, MySQL* | GitHub  **June 2025**

- Engineered a modular RESTful API for managing users, products, and orders using Spring Boot and JPA.
- Implemented CRUD operations, pagination, and Swagger documentation for clean and testable endpoints.

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

- Engineered a novel fraud detection pipeline by combining Isolation Forest and Autoencoder features for enriched anomaly scoring.
- Trained Random Forest classifier on the enhanced dataset and bench-marked it against standard models .
- Achieved a 22.8% higher F1-Score and 21.1% higher MCC compared to Gradient Boosting Classifier, and significantly outperformed Logistic Regression-based models and Decision Trees based Models.

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

- Developed an AI chatbot to assist users with income tax-related queries in India.
- Implemented complex dialogue management to handle follow-up questions and guide users to the correct ITR forms.
- Designed and optimized the chatbot using machine learning techniques, improving response accuracy and user experience.

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

AWS APAC Solutions Architecture Virtual Experience Program (Forage) **March 2025**

- Designed a simple and scalable hosting architecture using Elastic Beanstalk.
- Explained architecture to the client in plain language, covering cost estimations.

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.