Manisha Singh

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Education

Bachelor of Technology (B. Tech)
Major in Computer Science; Minors in Artificial Intelligence and Machine Learning
VIT Bhopal University, Bhopal, Madhya Pradesh
Cumulative GPA: 8.24/10
Expected Graduation: May 2026

12th Standard
Surya Public School, Lucknow, Uttar Pradesh
CBSE Cumulative GPA: 7.94/10
July 2021

10th Standard
Guru Har Rai Academy, Kanpur, Uttar Pradesh
ICSE Cumulative Percentage: 88%
May 2019

Projects

Sanitary Waste Disposal Machine - October 2024
- Designed and pioneered an automated incineration system prototype, increasing waste disposal efficiency by 30% and minimizing environmental impact in pilot tests.
- Devised advanced temperature control mechanisms, reducing overheating incidents by 95% and enhancing user safety.
- Proposed sensor-based, touchless operation features, improving hygiene standards and user convenience for 50+ users during the trial phase.
- Utilized heat-resistant materials, extending system durability and reducing maintenance needs by 25%.

Administrative Chatbot - September 2024
- Liaised a chatbot leveraging Machine Learning and Natural Language Processing (NLP) techniques to accurately interpret and respond to over 500 user queries monthly.
- Automated scheduling, document requests, and frequently asked questions, reducing administrative workload by 40% and improving response time for users.
- Restructured the chatbot using Dialog flow, Flask, and Python; designed an interactive user interface that supported real-time collaboration for 100+ users.
- Integrated MySQL and MongoDB databases for robust data management, ensuring 80% retrieval accuracy for user requests.

Fraud Detection in Online Banking Transactions - July 2023
- Implemented a data validation process using Python and Pandas, identifying and correcting over 150 data inconsistencies in large transaction datasets, ensuring 99% data integrity for fraud detection models.
- Assessed data visualization techniques (Matplotlib, Seaborn) to analyse model outputs, optimizing model performance by 15% and presenting actionable insights to stakeholders.
- Streamlined and deployed supervised machine learning models, including Random Forest and Logistic Regression, to perform anomaly detection on transaction data, identifying fraudulent patterns with a 60% accuracy rate.
- Achieved a 20% reduction in false positive rates, improving the reliability and efficiency of fraud detection systems.

Skills

- Proficient in programming languages including C++, Java, and Python.
- Experienced in backend development, including RESTful API design, authentication using Firebase Auth, and microservices architecture.
- Skilled in cloud computing and DevOps tools such as Docker, Firebase, and version control systems (Git, GitHub).
- Knowledgeable in database management, including SQL, database design, and performance optimization.
- Familiar with software engineering methodologies, including Agile development and CI/CD pipeline implementation.

Extra Curriculars

- **BitByBit Club, VIT Bhopal University (2024–2025)**
  Led the Event Management Department, organizing and executing over 10 technical workshops and hackathons, enhancing student engagement and fostering a collaborative learning environment.
- **Cyber Warriors Club, VIT Bhopal University (2023–Present)**
  Managed communications and outreach initiatives as a member of the Public Relations & Outreach Department, increasing club event participation by 30% through targeted campaigns and social media engagement.
- **Literature Club, Guru Har Rai Academy (2017–2019)**
  Coordinated debate and declamation competitions, mentoring 20+ students and contributing to the club's recognition in inter-school events.
- **Event Management Club, Guru Har Rai Academy (2016–2019)**
  Directed a team of 15 students to plan and deliver successful school-wide events, optimizing resources and improving attendance by 25%.

Additionals

- **Certifications:**
  IBM GenAI Using Watsonx, May 2025
  IBM Cyber Security Analyst, May 2025
  NPTEL Privacy and Security in Online Media, April 2024
  Applied Machine Learning in Python - Coursera, January 2024
- **Languages:** Fluent in English and Hindi