MANISHA J

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OBJECTIVE

M.Tech Computer Science student at VIT specializing in Python, C++, SQL, and AI-driven applications. Experienced in building real-world projects including real-time sign language recognition, landslide prediction and Analytics. Skilled in OOPs, data structures, and algorithms with a passion for solving impactful engineering problems in fast-paced environments.

EDUCATION

Vellore Institute of Technology (VIT), Vellore July 2024 – Present
M.Tech in Computer Science and Engineering — CGPA: 8.07

Global Institute of Engineering and Technology, Vellore Aug 2020 – May 2024
B.E. in Computer Science and Engineering — CGPA: 8.59

SKILLS

Programming Languages	Python, C++, SQL, HTML, CSS, Kotlin.
Core Competencies	Data Structures and Algorithms, Object-Oriented Programming (OOPs)
Frameworks & Libraries	TensorFlow, Keras, Scikit-Learn, Hugging Face Transformers, NumPy, Pandas, OpenCV, Tkinter.
Tools & Technologies	Pyttsx3, SpeechRecognition API, IBM Cloud, Git/GitHub, Android Studio, Jetpack Compose.
Areas of Interest	Artificial Intelligence & Machine Learning, Computer Networks.

PROJECTS

Real-Time Sign Language Recognition & Speech Conversion *Ongoing*
• Developed an AI-powered system enabling real-time communication between signers and non-signers through gesture recognition and speech synthesis.
• Designed a hybrid deep learning model combining MobileNetV2 and ResNet, achieving over 98% test accuracy.
• Integrated palm detection, hand tracking, and text-to-speech for seamless real-time performance.
• Built a Tkinter-based GUI supporting webcam input, visual feedback.
Tech Stack: Python, TensorFlow/Keras, OpenCV, Tkinter, Pyttsx3, SpeechRecognition

Landslide Prediction Using Machine Learning *Duration: 6 months*
• Conducted statistical analysis and evaluated ML models on geospatial and meteorological data.
• Achieved 96% accuracy with Random Forest; validated using cross-validation and confusion matrix metrics.
• Applied feature selection and correlation analysis to enhance model generalization.
• Designed experiments to assess model robustness under imbalanced data.
Tech Stack: Python, TensorFlow, Pandas, Random Forest

Social Media Analytics: Dissecting the Digital Landscape Link *Duration: 3 months*
• Analyzed social media trends and behavioral patterns to support digital marketing strategies.
• Extracted insights from multi-platform datasets using IBM tools.
• Generated visual reports for user engagement and sentiment.
Tech Stack: IBM Cloud, Python, Data Visualization (Certificate)

CERTIFICATIONS

• Machine Learning A-Z: AI, Python + ChatGPT Prize [2025] — Udemy [Link] Completed 2025
•Android App Development (Internshala – Ongoing): Learning Kotlin and Android Studio for mobile app develop.
•Web Development Bootcamp-Udemy [Link] Completed 2024

ACHIEVEMENTS

• Presented "Evaluating ML Algorithms for Landslide Prediction in Northeast India" at ICCRTEE 2025; published in IEEE Conference Proceedings. [Certificate Link]

• Event Coordinator — Led logistics and promotion for inter-college coding contests and technical events with 100+ participants.