Abhinav Singh

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Education

VIT Bhopal, BTech in Computer Science and Engineering   Sept 2022 – May 2026

Projects

Beru AI Personal Assistant

Python, NLP, Speech-to-Text, Text-to-Speech, Groq, Cohere, Hugging Face, PyQt5

– Built an AI assistant with voice recognition, real-time web search, and automated task management.
– Integrated Groq, Cohere, and Hugging Face for intelligent responses, AI-driven image generation, and multi-language support.
– Designed a modern, intuitive GUI for seamless interaction and accessibility.

Emotion Recognition System

Python, TensorFlow/Keras, OpenCV, CNN, Deep Learning

– Developed a CNN-based real-time emotion recognition system using facial expressions.
– Achieved high accuracy via deep learning, dataset training, and advanced preprocessing.
– Integrated OpenCV for real-time face detection and live emotion analysis.

Face Recognition Attendance System

Python, OpenCV, Face Recognition, Joblib, Concurrent Processing

– Developed an AI-powered attendance system using real-time face recognition.
– Optimized recognition accuracy with a robust training phase and multi-threading.
– Automated attendance logging in CSV format for efficient record management.

Skills

Languages: Python, HTML, CSS, JavaScript, SQL

Technologies: Machine Learning, Cloud Computing, Data Structures, Algorithms, Software Design, Ethical Hacking

Operating Systems: Linux/Unix, Windows

Tools: Git, MATLAB, Simulink, Microsoft Office (Word, PowerPoint, Excel, etc.)

Databases: MongoDB, MySQL

Extracurricular Activities

Technical Lead, Linpack Club, VIT Bhopal – Bhopal, Madhya Pradesh   Dec 2023 – Present

- **Led the Technical Team of Linpack Club**, overseeing MATLAB-based projects, managing hackathons, and organizing multiple events to foster innovation and collaboration within the team.

Certifications

- MongoDB Developer's Toolkit: CRUD Mastery with Node.js, Python, **GeeksforGeeks**, Issued Jan 2025
- Complete Ethical Hacking Bootcamp, **Udemy**, Issued Dec 2024
- Machine Learning Specialization, **DeepLearning.AI, Stanford University**, Issued Jun 2024
- Cloud Computing, **NPTEL**, Issued May 2024
- The Bits and Bytes of Computer Networking, **Google**, Issued Dec 2023
- Version Control, **Meta**, Issued Jun 2023