Raj Verma

+91-9807486339 | i.rajverma8423@gmail.com | linkedin/raj-verma | github/raj-verma

EDUCATION

VIT Bhopal University (GPA = 8.97) — Bhopal, Madhya Pradesh
Bachelor of Technology, CSE-AIML — *Sep. 2023 – Present*

Pt. D.P. Mishra Memorial Public School(12th = 86.6%) — Kanpur, Uttar Pradesh
Intermediate and High School — *June 2019 – June 2022*

TECHNICAL SKILLS

Languages: Python, Java, HTML, CSS
Developer Tools: Git, Hugging Face, Google Colab, VS Code, PyCharm
Libraries: LLM, Lamma, SpeechRecognition, OpenCV, MediaPipe, pyttsx3, scikit-learn
Frameworks: Flask, Firebase, FastAPI

PROJECTS

AgriSense – Smart Agriculture Assistant | *Python, scikit-learn, pandas, Jupyter, Flask* — *Mar. 2025*
- Built 2 ML models to recommend optimal crops (with 92% accuracy) and predict corn plant growth stages (MAE ¡ 1.5 cm).
- Used 3+ classification and regression algorithms to analyze real-time sensor and historical agricultural data.
- Integrated models into a Flask-based web app for a fully functional demo during a 36-hour hackathon.
- Handled the ML pipeline including data preprocessing, feature selection, training, validation, and packaging.

Virtual Mouse | *Python, OpenCV, MediaPipe, PyAutoGUI* — *Dec. 2024*
- Developed a Python-based virtual mouse system using **OpenCV, MediaPipe,** and **PyAutoGUI.**
- Captured real-time hand gestures at 30 FPS through webcam and mapped movements to screen coordinates.
- Implemented fingertip detection to enable cursor movement and clicking functionality.
- Achieved high accuracy in gesture recognition using computer vision.

N.E.S.T – Neighbourhood Emergency & Safety Tool | *React, Tailwind CSS,, Matplotlib* — *Nov. 2024*
- Developed a full-stack community safety platform to manage emergency alerts, complaints, and feedback using React (frontend)
- Implemented features such as anonymous suggestion boxes, CCTV surveillance status, quiet hours policy, and emergency drill scheduling.
- Integrated APIs using Requests to automate data retrieval and Matplotlib for generating visual safety reports.
- Improved user engagement and safety awareness through intuitive UI and regular system-generated notifications.

ACHIEVEMENTS

HackMol 6.0 Hackathon @NIT Jalandhar: Top 10 Finalist
Ethnus MERN: MERN Full Stack Certification Course.
Leet Code: 100 Days Badge
Coding Challenge @VIT Bhopal: Cleared Round 3 among 423+ students during placement drive screening.

EXTRACURRICULAR

Core Member | *Insight Club & UX Club – Tech* — *Jan. 2025 – Present*
- Organized technical seminars on AI and launched Annual Magazine with 200+ attendees.
- Led Q&A and interactive sessions, improving engagement by 30%.

Placement Coordinator | *PAT Team, VIT Bhopal* — *Oct. 2024 - Present*
- Selected as 1 of 16 coordinators to assist in placement operations for 450+ students.
- Helped manage Cognizant and TCS placement drives ensuring smooth logistics and communication.

Captain | *NCC Air Wing 3 UP SQN* — *2018-2020*
- Completed 8+ NCC camp within UP Level and selcted as one of two JD for finals
- Selected in BCC(Best Cedit Camp) for RDC(Republic Day Camp).