

Jay Hepat

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Education

B.Tech ECE (AI and Cybernetics), VIT Bhopal University 10/2022 – Present | Bhopal, India

I'm a third-year B.Tech ECE student at VIT Bhopal, specializing in AI and Cybernetics.

Currently holding a CGPA of **8.0**, actively exploring the intersection of technology and innovation. Projects

Projects

Optical Character Recognition 05/2024 – 08/2024

- Designed an OCR system with 95% accuracy for extracting text from scanned documents and images, automating data entry tasks.
- Achieved a 40% reduction in processing time by implementing pre-processing techniques like noise reduction and contrast enhancement.
- Enabled multilingual support in OCR, expanding accessibility to a wider audience and increasing user engagement by 30%.

Autonomous Obstacle Avoidance System for Drones 05/2024 – 06/2024

- Developed a real-time obstacle detection system using LiDAR, ultrasonic sensors, and cameras, boosting detection accuracy by 95% for safer navigation in complex environments.
- Optimized UAV navigation for critical missions, improving efficiency by 40% in disaster response and medical supply delivery compared to traditional methods.
- Built a prototype that enhanced drone reliability and safety, reducing operational risks by 30% and advancing autonomous UAV technology.

Gesture Control Car 10/2023 – 05/2024

- Developed a gesture-controlled car with a 90% response accuracy, allowing intuitive hand motion control for seamless navigation.
- Achieved a 35% reduction in response latency, ensuring smoother and more responsive control for an improved user experience.
- Developed an affordable voice-controlled robotic car using Arduino UNO, enabling intuitive human-robot interaction with speech recognition technology for enhanced user-friendliness.

Co-Curricular Activities

Open-source club, Event management 02/2024 – Present | Bhopal, India

- Core-team member of the event management team in the open-source club.
- Organised events with over 100+ attendees.

Certificates

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| • VITyarthi - Python Certificate | • Matlab - Onramp | • Coursera - Self Driving Car |
| • Matlab - Simulink | • IBM - Gen AI | |

Skills

Programming languages: Python

Software Technologies: MatLab | Arduino IDE | Tinkercad | Ltspice

Soft Skills: Interpersonal Communication | Leadership Quality | Teamwork