

VEDANT BHANDARE

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SUMMARY

Electronics & Telecommunication Engineering student with hands-on experience in computer vision, machine learning, embedded systems, and real-time applications. Skilled in Python, C/C++, OpenCV, and MediaPipe, with experience building gesture-controlled 3D interaction systems and sensor-driven prototypes. Strong problem-solver with a keen interest in applied AI and human-computer interaction.

SKILLS

Technical Skills

- Programming: C, C++, Python, Embedded C
- Computer Vision & ML: OpenCV, MediaPipe, Gesture Recognition, Feature Extraction, ML Classification, Real-Time CV Pipelines
- Embedded & Electronics: Arduino, ESP boards, Sensor Integration, Circuit Design, PCB Basics, UART/I2C, IoT Fundamentals
- Tools: Git, VS Code, MATLAB, Arduino IDE
- Core Concepts: Algorithms & Data Structures, Signal Processing, Control Systems

Soft Skills

- Leadership, communication, teamwork
- Adaptability, quick learning, problem-solving

PROJECTS

- **3D Object Gesture Viewer (Computer Vision × ML)**
Built a real-time system to manipulate 3D objects using hand gestures. Implemented hand tracking with OpenCV and MediaPipe, extracted landmark features, and integrated ML-based gesture classification with a 3D interaction pipeline for smooth, touch-free control.
- **BioFeedback Wellness System (ML-Enabled)**
Developed an intelligent system integrating sensors, machine learning, and personalized adaptive feedback for monitoring wellness metrics.
- **Obstacle Detection Glasses for the Visually Impaired**
Designed smart wearable glasses using ultrasonic sensors to detect nearby obstacles and provide haptic feedback, improving mobility and safety for visually impaired users.
- **Piezoelectric Footstep Energy Harvesting**
Built an energy-harvesting prototype converting footstep pressure into electrical energy using piezoelectric sensors.

EDUCATION

Bachelor of Engineering in Electronics & Telecommunication
Terna Engineering College, Nerul, Navi Mumbai (Expected in 2027)

Aug 2023 - July 2027

ADDITIONAL INFORMATION

- **Languages:** English, Hindi, Marathi
- **Certifications:** IIT Madras Soft Skills • PCB Design Basics • Python Essentials
- **Awards/Activities:** Presented an innovative engineering project at a college exhibition while contributing to Public Relations and Finance operations during the college fest, demonstrating strong teamwork, leadership, and organizational skills across multiple campus roles.
- **Links: Project Portfolio & Documentation:**
<https://drive.google.com/drive/u/0/folders/17G7rToHR60xKnUpdhkPB5rjXap2NRrhI>