

# DHYEY THAKKAR

☎ 8169294414 ✉ [dhyeythakkar1073@gmail.com](mailto:dhyeythakkar1073@gmail.com)  [LinkedIn](#)



## Education

**Vishwakarma Institute of Technology, Pune**  
*Bachelor of Technology in Computer Science*

**2022 – 2026**  
**CGPA - 8.15**

## Projects

**Switches With Traditional and IoT-Based Control System** | *IoT, Arduino IDE, NodeMCU, Relay Modules*

- **Integrated IoT** with traditional switching methods for **100+** devices, enabling IoT control without altering existing hardware.
- Addressed usability and safety challenges with minimal modifications to **10+ physical switches**, particularly enhancing usability for the elderly .
- Developed **web-based and app-controlled systems**, achieving an **increase in user engagement** through tools like AutoDesk Tinkercad, Fritzing, and Libre PCB.

**Geographic Image Risk Prediction Using GIS and Machine Learning** | *GIS, ML, Satellite Imagery, Deep Learning*

- Developed an **AI-driven** risk prediction system leveraging **GIS** and **machine learning** to analyze satellite imagery and environmental data, improving disaster preparedness
- Implemented risk factor models using environmental indices (**EPI, CRI, UDI, LUV**) to enhance prediction accuracy for floods, landslides, and wildfires.
- Utilized deep learning techniques such as **CNNs** and ensemble learning to refine risk classification, increasing precision in hazard-prone regions.

**Autonomous Leaf Disease Detection and Pesticide Spraying Robot** | *IoT, Machine Learning, Raspberry Pi, GIS*

- Designed and implemented an **autonomous** robot using **Raspberry Pi** and a camera module to detect leaf diseases in a controlled farm environment, improving precision in disease identification
- Integrated a trained **deep learning** model with image processing to classify leaf diseases in **real-time**, triggering pesticide spraying using motorized pumps based on disease type.
- Utilized **GPS** and **relative positioning sensors** to log disease occurrences, storing images, location data, and classification results in a database accessible via a web-based dashboard.
- Developed a **user-friendly** web interface using **Django/Flask** to visualize detected diseases on an interactive GIS map, aiding farmers in tracking affected regions and optimizing pesticide use.

## Achievements

- Round One Qualifier– Smart India Hackathon (SIH) 2.0 2024

## Certifications

- Nvidia , Fundamentals Of Deep Learning
- AWS Cloud Technology Consultant

## Conferences & Research Work

- **Research Paper:** "Voice-enabled Chess Game: A Human-Computer Interaction Approach" published in **ICMLBDA**
- **Research Paper:** "Drunken Driving Detection Using IoT" published in **UGC**
- **Research Paper:** "Green Corridor for Emergency Vehicles Using GPS" published in **IJRASET**

## Technical Skills

**Languages:** Python, C, Java, HTML5, CSS3, Javascript, SQL, R

**Technologies:** React.js, Node.js, Bootstrap, Flask

**Coursework:** Data Structures and Algorithms, Object Oriented Programming, Computer Networks, Operating Systems, Database Management, Data Science

**Tools and Technologies:** GitHub, OpenCV, Arduino, NodeMCU, Arduino IDE, AutoDesk Tinkercad, Bylnk

## Soft Skills

**Problem Solving:** Resolved complex technical issues and optimized system performance.

**Teamwork and Collaboration:** Collaborated effectively with team members to achieve project goals.

**Communication:** Excellent verbal and written communication skills.

**Adaptability:** Adjusted work plans to meet changing project requirements.

**Attention to Detail:** Ensured accuracy through thorough testing and error-free deliverables.

**Leadership:** Led a team to successfully complete projects on time.