SHRIVARDHAN SHARMA

+91 9782135872 • shrivardhan2604@gmail.com • linkedin.com/in/shrivardhansharma • github.com/shrivardhan07

PROFESSIONAL SUMMARY

Electronics and Communication Engineer with practical experience in IoT, robotics, and embedded systems. Skilled in building real-time hardware solutions, developing STEM education kits, and leading tech projects. Passionate about using technology to solve real-world problems, with a strong foundation in hands-on prototyping, coding, and mentoring students through competitions.

EDUCATION

B.Tech - Electronics and Communication Engineering
Vellore Institute of Technology, Bhopal | 2022-2026

- **Relevant Coursework:** Embedded Systems, Robotics, Circuit Design, IoT Applications, Microcontroller Programming, Signal Processing, Control Systems, Python Programming, Machine Learning.
- **Certifications:**
  - PCB Design Training at SIITA-Delhi
  - Bits & Bytes of Computer Networking, Coursera
  - 1-Year Diploma - Embedded Systems & Robotics
  - Embedded Systems - Coursera

PROFESSIONAL EXPERIENCE

Research Intern - Signal & Transmission Department **10/2024 - 01/2025 | Jaipur, Raj.**
Jaipur Metro and Rail Corporation (JMRC) | Internship

- Acquired hands-on exposure to Automatic Fare Collection (AFC) systems, analyzing their functionality and integration with JMRC's real-time passenger data ecosystem.
- Explored signal communication protocols and examined how metro train operations are streamlined through advanced electronic infrastructure in urban transit systems.

Technical Development Manager - STEM Kits **03/2023 - 09/2024 | Hybrid**
Hyaku Innovative Technologies Pvt. Ltd. | Contract

- Developed and supplied over 25 tailored STEM learning kits to more than 10 academic institutions, curating age-specific content to enhance experiential education.
- Lead a team of 10+ Developers to Launch TechHyaku Application, an Educational App that features over 50 interactive STEM Education Modules.

STEM Education Mentor - Robotics & Embedded Systems **06/2023 - 10/2024 | Hybrid**
Dr.Ambedkar Lab Foundation (NGO) | Voluntary

- Trained 1500+ underprivileged children in STEM using hands-on innovation kits and mentored 50+ for national competitions, with 10 teams earning awards and industry recognition.

PROJECTS

Face Gesture Control Environment Automation System for Special Children **06/2024 - 02/2025**

- Developed a hands-free automation system using facial gestures to help specially-abled children control lights, fans, and other appliances. Utilized OpenCV for real-time facial gesture recognition and integrated it with Arduino-based relays for device control.
- Designed the solution with accessibility and ease-of-use in mind, promoting independence in everyday tasks.

Autonomous Agriculture Bot with OpenCV Disease Detection **11/2023 - 05/2024**

- Engineered a smart agricultural bot using IoT technology to automate critical farming processes such as seed planting, irrigation control, and weed identification.
- Applied computer vision techniques with OpenCV to detect crop diseases in real time, enabling early intervention and boosting agricultural productivity.

Emergency Response Rescue Vehicle **08/2023 - 10/2024**

- Designed a robotic vehicle for disaster zones to detect human presence and hazardous conditions using ultrasonic, gas, and temperature sensors. Integrated GPS and GSM modules for real-time location tracking and automated alert messaging during emergencies.
- Programmed and tested autonomous navigation and safety features using Arduino for rapid, low-risk rescue operations.

LEADERSHIP EXPERIENCE

President - VITronix Club, VIT-Bhopal **03/2024 - 02/2025**

- Led a team of 70 members in organizing 5+ workshops and technical events, which attracted over 500 participants from various engineering disciplines.
- Successfully increased club membership by 25% and enhanced the visibility of the club within the university.

Technical Team Representative - IEEE VIT Bhopal **05/2023 - 10/2023**

- Oversaw the execution of five large-scale technical initiatives involving cross-functional student teams, and facilitated three high-impact webinars that engaged over 1,000 participants.

SKILLS AND INTERESTS

- **Languages:** Python, Embedded C, CPP
- **Tools & Platforms:** Arduino, ESP, MATLAB, OpenCV, TinkerCAD, KiCAD, Raspberry Pi, LT Spice, Proteus
- **Domains:** Embedded Systems, Robotics, IoT, AI & ML, PCB Design, Home Automation, Leadership, 3D Printing