Tejas Mali

Automation & Robotics Student · Surat, Gujarat

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Summary

Diploma student in Automation and Robotics at Dr. S. & S. Gandhi College of Engineering & Technology, Surat. Builds practical projects that combine electronics, robotics, software and AI, with one year of freelance Shopify development and open-source work. Interested in industrial inspection and embedded systems. Seeking a six-month internship to contribute to real projects.

Experience

1 year **Freelance Shopify Developer** and Open-Source Contributor

- Developed and customized Shopify storefronts for client stores, implementing client requirements.
- Created open-source projects, including Multi Drive, and collaborated with other developers.

Education

2024 – Present Diploma in Automation and Robotics, CGPA: 7.52/10 (current)
Dr. S. & S. Gandhi College of Engineering & Technology, Surat (GTU) · Expected completion: 2027

2024 Class 10 (GSEB): 69%

Projects

Smart Industrial Inspection Helmet

- Built a computer-vision prototype that detects analog industrial gauges and estimates needle readings.
- Stores verified readings as results.

Tech: Python, OpenCV, RDK X5
GitHub repository

Magnetic Crawler Crack-Detection Robot

- Worked on a magnetic crawler inspection robot for metal surfaces such as boilers and ship hulls.
- Used camera-based OpenCV processing for surface-crack detection.

Tech: OpenCV
GitHub repository

Multi Drive (Open Source)

- Created an open-source platform for managing Google Drive and MEGA accounts in one interface.
- Includes file browsing, uploads, folder management, cross-account search and storage summaries.

GitHub repository

Class AI (Local Lecture Notes)

- Developed a lecture transcription and study-notes application with local transcription and AI analysis.

Tech: faster-whisper, Ollama
GitHub repository

Achievements

- Received multiple team project grants through Hack Club programs, including a grant for a 3D printer, to support technical projects and prototyping.

Skills

Programming & Web	Python, JavaScript, C++, HTML, CSS, Node.js, Shopify
Robotics & Embedded Systems	Arduino, ESP32, Raspberry Pi, RDK X5, sensors, actuators
Computer Vision & Local AI	OpenCV, MediaPipe, Ollama, local LLM deployment, faster-whisper
CAD & Design	Onshape, KiCad
AI Development Tools	Claude Code, OpenCode

Interests

Robotics and mechatronics · Industrial automation and inspection · Maintenance, repair and tweaks · PCB designing