

SNEHA PATIL

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PROFESSIONAL SUMMARY

Pre-final year Mechanical Engineering student with hands-on manufacturing experience in precision measurement, quality inspection, and mechanical assembly from an industry internship. Proficient in CAD, with project experience in EV battery pack design and team-based robotics development.

INTERNSHIP EXPERIENCE

Engineering Intern

Pegasys Machines Pvt Ltd | Jul 2025 – Aug 2025

- Studied the mechanical design, pneumatic system (panel, cylinders, pressure regulation), and PLC/HMI control of an Automatic Shaft Straightening Machine; participated in mechanical assembly including frame setup and actuator integration.
- Machined cylindrical components to specification on a conventional lathe, turning, facing, drilling, boring, and slotting.
- Verified dimensional accuracy and tolerances on production components using precision measuring instruments.

EDUCATION

B.E. – Mechanical Engineering, KLS Gogte Institute of Technology, Belagavi (2023 – 2027)

• CGPA: 6.4 / 10

Pre-University (Science) – Empower PU College, Dharwad

10th – SSLC – St. Joseph's Convent School, Gulbarga

TECHNICAL SKILLS

CAD & Design: CATIA V5, Autodesk Fusion 360

Core Engineering: Material Science, Structural & Material Analysis, Engineering Mathematics

Programming & Analysis: Python

CORE ENGINEERING PROJECT

Elimination of Potting in Li-ion EV Batteries (Mini Project)

Research & Analysis

- Conducted literature survey on potting materials covering toxicity, carbon footprint, recyclability, and impact on EV range.
- Collaborated in a 4-member team to prepare structured analysis reports and present findings effectively.

EV Battery Pack Redesign for Easy Disassembly & Recycling (Major Project)

- Designing a modular battery pack to improve end-of-life disassembly time, material recovery rate, and recycling efficiency.
- Applying structural and material analysis to optimise pack design while maintaining safety and performance benchmarks.

Intelligent Robotic Pick-and-Place System (National Level Physical AI Robothon 2026 Finalist)

- Worked as part of a team to develop a robotic pick-and-place system capable of detecting, grasping, and placing objects in a simulated environment.
- Integrated MuJoCo with ROS 2 to enable real-time communication between simulation and the robot control pipeline.
- Implemented a deterministic control strategy for object detection, grasping, movement, and precise placement.
- Designed the system with a modular architecture to support future integration of learning-based robotic control.

ADDITIONAL PROJECTS (CROSS-DISCIPLINARY)

ArthSakhi – AI-Powered Financial Literacy Chatbot

- Built an AI chatbot to empower women with financial literacy and budgeting guidance

Safety & Training Platform (SafePath)

- Developed a platform integrating real-time SOS alerts with training-based safety simulations for industry-specific scenarios.

ACHIEVEMENTS & RECOGNITION

- Winner – Girl Geeks Hackathon: 1st place (safety-tech track) among 40+ teams from Karnataka engineering colleges.
- Winner – Poster Presentation, BITS Pilani Goa Tech Fest: recognised for research quality and presentation clarity.
- Finalist – National Level Physical AI Robothon (2026), organized by XP Skills in association with VRIF and IEEE RAS.

CERTIFICATIONS & LANGUAGES

Certifications: Google AI Essentials, Google Prompting Essentials (Coursera/Google, May 2026); Robotics Skill Development (KLS GIT)

Languages: English • Hindi • Kannada