

Gaurav Dusane

Mechanical Engineer — Robotics & Automation

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Jalgaon, Maharashtra, India

EDUCATION

SSBT's College of Engineering & Technology

Bachelor of Engineering in Mechanical Engineering

Jalgaon, Maharashtra

Aug 2023 – May 2027

- Relevant Coursework: Machine Design, Thermodynamics, Manufacturing Processes, CAD/CAM, Robotics
- Active member of Mechanical Engineering Students Association (MESA)

TECHNICAL SKILLS

CAD & Design Software: SolidWorks, AutoCAD

Robotics & Automation: ROS 2, Gazebo, URDF, Moveit, Rviz

Programming Languages: Python, Cpp

Operating Systems: Linux (Ubuntu), Windows

Other Tools: Microsoft Office

PROFESSIONAL Experience

Training & Placement Coordinator

Mechanical Engineering Students Association (MESA)

Sep 2025 – Present

Jalgaon, Maharashtra

- Coordinate training programs and placement activities for 200+ mechanical engineering students
- Establish industry partnerships and organize technical workshops on advanced manufacturing technologies
- Mentor students in technical skill development and career preparation for top engineering companies

Mechanical Engineering Intern

Hitachi Astemo Powertrain Systems Pvt. Ltd.

Jun 2025 – Jul 2025

Neemrana, Rajasthan

- Worked on automotive powertrain component design and manufacturing processes for automotive supplier
- Analyzed production workflows and quality control procedures for Brake systems

Production & Quality Control Intern

Kiran Machine Tools Pvt. Ltd.

Jun 2025 – Jul 2025

Jalgaon, Maharashtra

- Conducted quality inspections and dimensional verification using precision measurement instruments
- Prepared technical documentation including inspection reports and standard operating procedures (SOPs)

Event Organizer

Mechanical Engineering Students Association (MESA)

Jun 2024 – Sep 2025

Jalgaon, Maharashtra

- Organized co-curricular events including workshops, guest lectures, and engineering competitions
- Led team of 15 members coordinating logistics, sponsorships, and participant engagement for events with 300+ attendees
- Developed organizational and leadership skills through successful execution of college-wide technical festivals

TECHNICAL PROJECTS

Robotic Arm Development with Thermal Sensing Integration | Personal Project

2024 – 2025

- Designed a robotic arm in SolidWorks with structural analysis (load, stress & strain) to validate mechanical integrity for industrial use
- Built a URDF model and simulated full arm kinematics in Gazebo using ROS 2, including joint trajectory and inverse kinematics control
- Integrated a thermal camera sensor on the gripper to detect object surface temperatures, enabling safe pick-and-place in high-heat industrial environments

ACHIEVEMENTS & ACTIVITIES

Technical Competitions: Participated in national-level and Intercollege engineering competitions and hackathons

Certifications: Completed online courses in CAD, Analysis and Robotics

Leadership: Successfully managed teams for technical events demonstrating project management capabilities

Research Interest: exploring Industry 4.0 technologies including robotics, automation, and smart manufacturing