

Vivan Bangera

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PROFILE

B. Tech graduate in Robotics and Automation with a strong interest in automotive systems, specializing in intelligent mechatronic design and control.

EDUCATION

MIT World Peace University

Pune, India

Bachelor of Technology in Robotics and Automation Engineering

2021 – 2025

- Relevant coursework in Robotics, Control Systems, Mechatronics | CGPA: **8.3**

SKILLS

Technical: Machine Design & Analysis, Embedded Systems & Sensors, Python, Data Visualization, AR/VR Development, Machine Learning, Hydraulics and Pneumatics, PLC Programming (Siemens and Bosch Rexroth)

Tools: MATLAB, AutoCAD, Arduino IDE, Ansys, Power BI, Excel

CERTIFICATIONS

- PLC Based Hydraulic System by SRM Institute of Science and Technology – April'22 ([link](#))
- Gained hands-on experience in ladder logic programming, sensor-actuator control, and hydraulic simulation.
- Python for Machine Learning & Data Science Masterclass – March'25 ([link](#))
- UiPath RPA Developer Course: Build 7 Robots – April'25 ([link](#))

EXPERIENCE

TATA Motors ERC

Pune, India

Project Trainee

07/24 – 01/25

- Developed LSTM-based predictive maintenance model for EV buses using time-series sensor data.
- Applied IQR and dendrogram clustering to preprocess and group 50+ sensor signals effectively.
- Automated failure detection, reducing manual diagnostic time and energy usage by over 40%.

Vivanta Fluidtech Systems

Pune, India

Pre-Sales Engineer Intern

03/25 – Present

- Interpreted engineering drawings and CAD specifications to identify suitable filtration and sealing solutions for industrial applications.
- Handled technical evaluation of RFQs, coordinated with manufacturers for pricing, and prepared competitive client quotations.
- Learned fundamentals of indirect taxation (GST), vendor negotiation, PO handling, and B2B sales processes.
- Contributed to faster turnaround cycles and improved quote accuracy, positively impacting client retention and lead conversion.

PROJECTS

Design and Development of a Soft Robotic Gripper

April'25

- Designed a soft robotic gripper using flexible silicone materials for safe object manipulation.
- Implemented real-time actuation control using Arduino and PWM, mimicking PLC control behaviour for pneumatic systems.
- Developed a fully functional soft pneumatic gripper with real-time actuation control, demonstrating reliable and repeatable motion under low-pressure operation.

Sandbox AI Development using AR/VR

June'23

- Built an AI-powered AR/VR environment using Unity, TensorFlow, and Vuforia.
- Designed interactive AI agents for real-time adaptive learning.

Design and Analysis of Hydrogen Based Storage Tanks

- Designed and simulated high-pressure hydrogen tanks using ANSYS FEA.
- Improved material selection and tank geometry for structural efficiency.