

# Sahil Shinde

Mechatronics Student | sahilshinde603@gmail.com | Thane, Maharashtra

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## Summary

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As a student pursuing Mechatronics Engineering, I'm learning about different branches of technology, particularly focusing on fields like Artificial Intelligence and Computer Systems. It is a field full of exciting concepts and I want to contribute my work as well.

## Projects

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### eYantra Robotics Competition 24-25 | Current

The theme of this project is Warehouse Automation using an UR5 Arm and a eBot that moves autonomously. I worked on improving the pose estimation, servoing and navigation code using various tools such as OpenCV, ROS2, Nav2, MoveIt2. I cleared the stage 1 selection.

### Temperature Regulation of a element with PID Control | 2023

I worked in a team to implement a PID controller to achieve precise and stable temperature control in a furnace system. We designed and tuned the PID parameters to ensure optimal performance, minimizing errors.

### Cyber Security Program | 2023

It was a 3 month Program. The Major Project focused on advanced tools like Nmap, Metasploit, and ophcrack for penetration testing and vulnerability assessment, while the Minor Project emphasized foundational techniques like footprinting, phishing, and SQL injection.

### Navigation Glasses for the Blind | Year: 2022

It was my first year Engineering Project which was entirely done by me. As a beginner in Arduino and C/C++ programming, I faced a steep learning curve but successfully created these obstacle-detecting glasses. Using ultrasonic sensors, the glasses achieved a minimum detection range of 2 cm with a filtering algorithm.

### 3D Animation | Year: 2020-2021

I spend a lot of time learning to model in blender as I had a developing interest in computer graphics and the math that goes behind it. I concluded it with developing some good animations.

### Quiz Maker Desktop App using Python | Year: 2020

I developed a desktop app using tkinter, matplotlib, pandas that saves the images of questions as per subjects and later students can test these questions which helps them in revision.

## Skills

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Python Programming, C/C++ Programming, 3D Animation and Modeling, Robot Operating System 2, Gazebo Simulation

## Education

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Terna College of Engineering | Nerul, Maharashtra

B.E. Mechatronics Engineering | 05/2025

IIT Ropar

Minor in AI | 08/2025

HSC | Thane, Maharashtra

82% | 10/2021

SSC | Thane, Maharashtra

76.6% | 03/2019

## Languages

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English, Hindi, Marathi, Sanskrit