

Mohammed Salah Chogle

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EDUCATION

Vivekanand Education Society's Institute of Technology (VESIT)

B.E. in Automation & Robotics | CGPA: 9.45

MHT-CET: 97.57 percentile JEE Mains: 92.68 percentile HSC (2022–23): 90.60%

Mumbai, MH

2023 – Present

ACHIEVEMENTS

1st Place – RoboAnalyzer Competition, IIT Delhi: *Developed three add-ons (Img2CSV, Jacobian Visualizer, AI chatbot) enhancing software functionality*

2nd Place – VES HACK-IT Intercollege 30-Hour Hardware Hackathon: *Built automated aeroponics system for smart urban farming*

2nd Place – Hack-AI-Thon 4.0 AI Hackathon, AI Colegion: *Developed AQI prediction web app with personalized health recommendations*

Top 50 Finalist – AgriTech Hackathon, K.J. Somaiya Institute of Technology: *Improved aeroponics system with scalable urban farming approach*

EXPERIENCE

Robotics Software Intern

Aug 2025 – Jan 2026

Accelus Robotics

Goregaon, Mumbai

- Developed a Python + PyQt5-based control interface for 6-DOF industrial robots and FAIRINO cobot, replacing complex teach pendant/ROS workflows
- Implemented Blockly-based visual programming, enabling non-expert operators to create robot task sequences without manual coding and real-time robot visualization

Product Development Intern

Dec 2025 – Feb 2026

Hydralite

Mumbai, MH

- Contributed to development of a light therapy medical device, including circuit design, PCB layout (KiCad), and 3D modelling
- Translated research papers into a working prototype through component selection, system integration, and testing; delivered a functional proof-of-concept device

R&D Researcher (Top 30 All-India Selection) | InventX

June 2026 – July 2026

IIT JAMMU

Jammu, J&K

- Engineered a novel stair-assist solution via 6 weeks of accelerated research and rapid prototyping, culminating in a provisional patent filing.

Co-Founder – Prixie 3D Printing | prixie3d.me

2026 – Present

3D Print Freelance Service

Navi Mumbai, MH

- Co-founded and operate a local 3D printing service; manage client orders, communication, and end-to-end fulfillment; fulfilled 20+ successful orders
- Built and maintain business website handling service listings and client inquiries

Graphics Officer

2025 – 2026

ISA-VESIT: Led Instagram content management, reel editing/review, and monthly newsletter and took tech workshops.

PROJECTS

Quadruped Spider Robot | ESP32, Servo Control, Custom Frame

In Progress

- Building a 12-servo, 4-legged walking robot; hardware complete, developing gait control and motion sequencing

Micro Inverted Pendulum (Cart-Pole System) | ESP32, Encoders, Linear Rail, PID

2026

- Designed and stabilized a pendulum-on-cart system using cascade PID control; implementing LQR for optimal control

RoboWar Combat Bot with Custom RF Control | NRF24L01, C++, Xbox Controller

In Progress

- Combat robot with custom-built NRF24L01 transmitter/receiver; Xbox controller input from laptop over custom wireless protocol

Crane Health Monitoring / Advanced Safe Load Indicator | IMU, ESP-NOW, Wi-Fi

2025

- Real-time crane safety system tracking boom angle and dynamic loads via IMU with low-latency ESP-NOW; evolving into a full SLI system for final-year implementation

Robotic Arms (3R/4R) | Arduino, OpenCV, MediaPipe

2025

- Designed from scratch and built multi-link arms with custom mechanical structure; OpenCV + MediaPipe hand gesture control

Image-to-CSV Addon for RoboAnalyzer | Python, IK, Contour Detection

2025

- Converts hand-drawn paths into joint-angle CSV trajectories using contour detection, interpolation, and 2-link inverse kinematics

Automated Aeroponics Tower | IoT, ML, Environmental Sensors

2025

- IoT vertical farming system with automated nutrient/lighting control and ML-based crop health prediction

TECHNICAL SKILLS

Programming: Python, C/C++, Arduino, C#

Robotics & Embedded: ROS/ROS2, ESP32, ESP-NOW, IoT, KiCad (PCB)

Mechanical: Fusion 360, AutoCAD, 3D Printing, Laser Cutting, Blender

Software & Vision: OpenCV, MediaPipe, PyQt5

Design: Illustrator, Photoshop, After Effects, Canva