Akshar Chauhan

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EDUCATION

Master of Engineering in Robotics and Autonomous Systems   Aug 2024 – Apr 2026 (Expected)
University of Cincinnati

Bachelor of Technology in Mechanical Engineering, Robotics and Automation   Jul 2019 – Jun 2023
Nirma University

EXPERIENCE

QA/QC Engineer Intern   May 2024 – Jun 2024
SASREF (Saudi Aramco Shell Refinery Company), Jubail, Saudi Arabia
- Specializing in the flange integration team during a major turnaround, ensured compliance with quality standards to enhance pipeline integrity.

Design Engineer   Jan 2023 – Feb 2023
Bharati Robotics Systems Pvt. Ltd., Pune, India
- Developed custom PCB mounts, focusing on **precision design** and **system integration**.
- Enhanced product functionality through **hardware-software integration** and **design reviews**.

Graduate Engineer Trainee
Indian Farmers Fertilizer Cooperative Limited, Kasturi Nagar, Ahmedabad, India
- Completed in-plant training, gaining hands-on experience with **advanced industrial technologies**.
- Developed a strong foundation in and industrial best practices, enabling **process optimization**.

PROJECTS

Autonomous Load Carrier   Jan 2023 – May 2023
- Designed a 50 kg **Autonomous Reconfigurable Load Carrier** with **automation**, **navigation algorithms**, and **path planning**.

Underwater Diver Delivery System   Jun 2022 – Aug 2022
- Developed a **UAV** for the Indian Navy, optimizing **robotics safety** and **real-time performance**.

Agastya 1.0 AUV   Dec 2019 – Dec 2022
- Created a 6-DOF **Autonomous Underwater Vehicle** integrating **computer vision**, **SLAM**, and **ROS1/ROS2**.

SKILLS

- **Robotics Engineering**, **System Integration, Automation**
- **Programming:** Python, C++, MATLAB, C
    - **Tools:** SolidWorks, AutoCAD, ANSYS, ROS1/ROS2, Gazebo
- **Robotics:** PLC, LIDAR, 3D Sensors, Camera Calibration
- **Development:** HIL Simulation, Object-Oriented Programming, Real-Time Optimization
- **Robots:** Fanuc, Onsite & Virtual Commissioning
- **ROS1/ROS2**.

PUBLICATIONS

- **Navigation Control of Remotely Operated Underwater Vehicle**
  Published in 2022; DOI: 10.37591/IJSCRS
  Novel approach for ROV control used in AMUROVc 2022.

ACHIEVEMENTS

- 1st place at **AMU ROV Challenge** out of 7 participating teams   2023
- 7th place at **Singapore AUV Challenge** out of 94 participating teams   2022
- Led University team in national robotics competitions.   2021
- Led University team in state robotics competitions.   2020