

Saksham Sharma

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SUMMARY

An enthusiastic and versatile electronics major student currently in his 6th semester. Seeking to put skills in Robotics and Automation, and Embedded Solutions into work. Familiar with Image Processing and Data Analysis as well. Also, write at blog "thelowesttype"

EDUCATION

R.V. COLLEGE OF ENGINEERING

B.E. IN ELECTRONICS AND

COMMUNICATION ENGINEERING

in 6th sem | Bengaluru, Karnataka

Current CGPA: 9.51 / 10.0

AKLANK PUBLIC SCHOOL

HIGHER SECONDARY SCHOOL

2018 | Kota, Rajasthan

CBSE (PCM): 80%

DAV INTERNATIONAL SCHOOL

SECONDARY SCHOOL

2016 | Ahmedabad, Gujarat

CBSE: 10 CGPA

SKILLS

SOFTWARES

Multisim • SPICE • Proteus • Fusion360

MATLAB • ILWIS • Blender • Unity •

KiCad • SolidWorks • After Effects •

Premier Pro • Photoshop

LANGUAGES

Python • Embedded C • C++ • Verilog •

LaTeX

FAMILIAR FRAMEWORKS:

ROS • OpenCV • Gazebo • Docker •

GCP

AWARDS

Top 150 IEEEExtreme Coding 14.0
(National)

Nationals Intel Tech Challenge

2nd IIT Gandhinagar Innovent
Competition

1st Tiny Tinkers by MakerFest

1st Fab-a-thon by
FabLab, CEPT

EXPERIENCE

ARTIFICIAL INTELLIGENCE AND ROBOTICS LAB, IISC

STUDENT INTERNSHIP

May 2022 – June 2022 | Indian Institute of Science, Bengaluru, India

- Identified appropriate motion planning algorithm for autonomous navigation of Copernicus robot.
- Developed DWA and APF based local planning algorithms. Deployed and tested the algorithms on the robot using ROS.

TITAN ENGINEERING AND AUTOMATION LIMITED (TEAL)

STUDENT INTERNSHIP

Aug 2021 – Sept 2021 | Hosur, Tamil Nadu

- Worked on a R&D project developing a UR5 based pick & place machine built around ROS framework.
- Implemented template matching algorithm for detection of an object in accordance to industrial standards.

ASTRA ROBOTICS | TECHNICAL HEAD

2021 – Present | RVCE Bengaluru

- **Participated** in ARTPARK competition by IISc Bengaluru.
- Developing the control system for a quadruped robot.
- Selected for round 2 in Flipkart Grid Challenge 2021.
- Participated in Indian Rover Design Challenge 2020 by Mars Society South Asia. Team placed 18th overall.

IEEE ROBOTICS AND AUTOMATION SOCIETY | CHAIR

2022 – Present | RVCE Bengaluru

- Organized PathFinderz competition - Hybrid hardware hackathon.
- Conducted Hands-on session on Advance Template Matching.

PAPERS

MULTI ROBOT PATH PLANNING USING PRIORITY BASED

ALGORITHM | ACCEPTED IN IEEE CONNECT 2022

- Created and open sourced a novel algorithm to plan paths for multiple robots with multiple goal points.
- Implemented ROS Architecture to simulate and test the said algorithm with multiple robots.

PROJECTS

MACHINE TENDING ROBOT 🚀 | PYTHON, ROS, OPENCV, UR5

- Created a UR5 based machine tending robot with Basler's camera.
- Implemented Fourier-Mellin transform based vision detection system.
- Devised the ROS-framework and drivers needed to interface with hardware for the setup.

VEHICLE CLASSIFICATION - DRDO PROJECT | EMBEDDED C, DSP

- Solution was developed for Armament Research and Development Establishment (ARDE), DRDO.
- Developed algorithms for a low powered device for classification of vehicle type based on acoustic and seismic data.