

# Sri Sai Sathvik Kadimisetty

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## PROFILE

As a driven and innovative Master's student in Robotics at the University of Bristol, I have honed my skills in developing innovative solutions for autonomous systems. My foundation in mechanical engineering, coupled with expertise in machine learning, positions me uniquely to navigate and contribute to the evolving landscape of robotics. I am actively seeking roles that present opportunities for continued learning and tangible impact.

## EDUCATION & QUALIFICATIONS

### University of Bristol, Bristol, UK - Master's degree Robotics

2023

Modules taught are Robotics Systems, Robotic research and technology methods, Introduction to Artificial Intelligence, Bio-Inspired Artificial Intelligence, Robotics Fundamentals, Machine Vision, and Assistive Robotics.

Dissertation: Threshold response models applied to best-of-n in Swarm Robotics.

Projects include:

1. Line Following Challenge - Successfully developed and implemented algorithms to enable precise line-following capabilities in autonomous robots.
2. Investigating odometry errors caused during collisions due to bump sensors – Led a team and Improved robot's accelerometer and encoder-based kinematics using sensor fusion for IR based collision avoidance.
3. Apple counting using machine learning - Employed machine learning techniques to accurately count apples in an orchard, streamlining agricultural processes.
4. A Case Study of Socially and Physically Assistive Robots in Human-Robot Interaction - Conducted an in-depth analysis of socially and physically assistive robots, examining their impact on human-robot interaction and potential applications in various settings.

### SRM University, Chennai, India - Bachelor's degree Mechanical Engineering, 78%

2020

Principal study topics include fluid mechanics, thermodynamics & heat transfer, solid mechanics, materials engineering, manufacturing, energy systems, dynamics & control Computer-Aided Design (CAD), Computer Integrated Manufacturing (CIM) and others. Completed multiple projects during the time of study on topics such as:

1. Automated Pill Dispenser
2. Design Modifications of Temporomandibular Joint Implant: A Finite Element Study

## WORK EXPERIENCE

### Robotics Intern | Safer Industries Ltd

Apr 2023 - Jun 2023

Safer Industries provides security to the community using autonomous technology.

- Spearheaded the creation of meticulous design specifications for security agents, incorporating control systems, vision sensors, IR sensors, and thermal sensors to enhance surveillance capabilities.
- Executed comprehensive analysis on the operational requisites and associated costs of the security agents. The in-depth evaluation facilitated the formulation of optimized solutions, which substantially enhanced performance metrics and achieved cost-efficiency.

**Robotics Intern | VERZEO****Sep 2019 - Nov 2019**

As an integral part of Verzeo, a forefront platform fostering learning through interactive and collaborative methods, I had the opportunity to amplify my proficiency in autonomous systems.

- Undertook a rigorous training program that adhered to stringent industry standards, working under the guidance of industry stalwarts on autonomous projects. This hands-on experience honed my ability to apply theoretical knowledge to practical applications.
- Leveraged IFTTT servers to successfully automate a home, demonstrating my capacity for innovation and problem-solving in the realm of home automation.

**Volunteer | ISHRAE SRM, Chennai Chapter****Nov 2016 - Apr 2018**

The Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE), was founded in 1981 at New Delhi by a group of eminent HVAC&R professionals.

- Played a pivotal role in member recruitment and event management during my inaugural year, streamlining procedures and effectively contributing to the growth of the chapter..
- Took on a leadership role in managing a multitude of events, effectively coordinating recruits' responsibilities and schedules to ensure seamless execution.

**KEY SKILLS**

Programming Languages	Python, C++
Tools and Libraries	Robot Operating System (ROS), Scikit Learn, TensorFlow, OpenCV, NumPy
CAD	AutoCAD, SolidWorks, Fusion360, Blender, Catia, ANSYS
Simulation	Gazebo, CoppelaSIM
Microcontrollers & Microprocessors	Arduino, ESP32, ESP8266, ATmega, ATTiny
Transferrable Skills	Adaptability, Teamwork, Problem Solving, Time Management
Language	English – C1

**AWARDS AND CERTIFICATES**

- Bristol Plus Awardee - University of Bristol, April 2023.
- ROS – Udemy, September 2021.
- Python – Udemy, September 2021.
- NPTEL Robotics – November 2019.
- IOT – Lema Labs, March 2019.
- Performed exceptionally good in the joint zonal training of basic robotics conducted by KJP and IIT BHU in April 2017.

**INTERESTS**

Photography, Books, Badminton, Pencil Drawings, 3D Animation.