Suriya Suresh

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Education

University of Maryland — **College Park, MD**

- M. Eng. Robotics — **Expected May 2024**

PSG College of Technology — **Coimbatore, India**

- B.E Robotics and Automation, GPA:8.82 — **June 2021**

Technical Skills

Operating Systems: Windows, Linux (Arch/Debian).
Programming Languages: C, C++, Python, PLC Ladder Logic.
Frameworks: Robot Operating System (ROS).
Software Tools: AutoCAD, SolidWorks, Festo-FluidSIM, MATLAB, Siemens TIA Portal.
Hardware: Siemens S7-1200 & 1500, Microprocessor 8085&8051, Arduino, Raspberry Pi
Languages: Tamil (fluent written and spoken)

Professional Experience

Research Trainee (R&D), Hachidori Robotics PVT LTD — **Aug 2021- June 2022**

- Proposed new navigational techniques for computer vision which improved accuracy of navigation along a path.
- Assisted with the development of an Autonomous Mobile Robot platform which was successfully launched as a product line.
- Handled quality control and deployment of robots to clients.

Technical Experience

Intern, Strategi Automation Pvt Ltd — **Jan 2021 - Apr 2021**

- Integrated a SCARA robot into a production line to do pick and place operations, replacing human labour.
- Developed a GUI for controlling a SCARA Robot involved in pick and place operations with a conveyor belt which aided easier process control.
- Reduced human labor by 20 percent.

Intern, Vyazhan Technologies — **Jan 2020 - Mar 2020**

- Assisted the creation of a webapp and a mobile android app which did identification of food dishes using machine learning.

Academic Projects

Modelling of a Toy Car in Gazebo — **College Park, MD-2022**

- Designed and controlled a toy car in Gazebo using ROS

Design of a simulation environment for gazebo (ROS) — **Coimbatore-2019**

- Assembled a simulation environment for a drone to fly in by keyboard input as a team effort.

Implementation of a facial recognition system using OpenCV and Python. — **Coimbatore-2019**

- Devised a facial recognition system that could be used to identify intruders for a security system.

Development of a small-scale Self-Driving Car using Visual Serving. **Coimbatore-2020**

- Researched and assembled the prototype of a low-cost automation solution for self-driving using a camera and an ultrasonic sensor

Development of a PID controller-based line follower using Arduino **Coimbatore-2018**

- Conceived a line follower robot that used a PID controller algorithm to auto correct itself to follow a black line.

Construction of a steering wheel display for Formula Bharat Racing Vehicle **Coimabtore-2019**

- Fabricated a prototype of a display mounted on the steering wheel to display engine and vehicle data from ECU in real time to the driver.

Activities and Affiliations

Robotics and Automation Engineering Association **Coimbatore, India**

- Executive Member, Coordinated events and guest speeches **Jun 2019 – Aug 2020**

Pegasus Racing **Coimbatore, India**

- Member of Electrical team, Overall 7th victor in Formula Bharat 2019 **July 2018 – Feb 2019**

Publications

Design of Pneumatic Gripper for Pick and Place Operation (Four jaw)

- Velineni, Poornesh & **Suresh, Suriy**a & C, Naveen & M, Suresh. (2020). Design of Pneumatic Gripper for Pick and Place Operation (Four Jaw). International Research Journal of Multidisciplinary Technovation. 2.1-8. 10.34256/irjmt2021
- https://doi.org/10.34256/irjmt2021

Design of Pneumatic Gripper for Pick and Place Operation (Four jaw)

- Parvathi Priya V **Suriya Suresh** Year: 2021 Integration of SCARA Robot for Pick and Place Application using PLC ICCAP EAI DOI: 10.4108/eai.7-12-2021.2314569
- http://dx.doi.org/10.4108/eai.7-12-2021.2314569