Sriram Radhakrishna

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Summary

• As an undergraduate student with three years of academic research and open source development experience in subjects including but not limited to data structures & algorithms in C/C++/Python, OpenCV, Numpy, ROS, MediaPipe and Tensorflow, I'm looking to leverage the same as a technical intern to gain a deeper understanding of Autonomous Mobile Robotics & Computer Vision for Industrial Automation.

• My work satisfaction is rooted in concise documentation & version control, healthy competition, team leadership, teaching & communicating with others and organizing the tasks at hand to executed as efficiently as possible.

• A far as personal time is concerned, it's often occupied in teaching the violin, long distance swimming, automating mundane chores and reading science-fiction, current affairs, biographies & self-help books.

Experience

Research Intern (Sophomore year), Center for Internet of Things
PES University
Jun 2022 - Jul 2022 (2 months)
Implemented a pedestrian intent classification & location prediction algorithm in Python for an autonomous mobile robot using OpenCV & Mediapipe based on independent research on Quaternion based pose estimation & Kalman filtering. The algorithm was able to predict the future location of a pose object in the frame with a latency of 45 milliseconds at 75% accuracy within a 50 pixel radius in an unoptimized 5th generation CPU based system.

Project Intern
PES Innovation Lab
Jun 2022 - Aug 2022 (3 months)
Developed an OpenCV/Tensorflow based vision package, automated flight controllers & K-means clustering based path optimizers in ROS Noetic as part of a team of three developers to simulate a fully autonomous collaborative system of UAV & UGV with the use case of waste management in urban environments.

Student Mentor
IEEE RAS(Robotics and Automation Society) PES University
Nov 2021 - Jul 2022 (9 months)
Led a team of four using the Kanban/SCRUM methodology to successfully conduct workshops, prepare problem statements, execution plans & code bases for events aimed at testing robotic path planning, robotic system, vision and hardware prototyping skills, which attracted over 500 participants in total and retained over 20 as reliable project interns.

Data Analytics & IIoT Trainee
Everlytics Data Science Pte Ltd

Apr 2022 - May 2022 (2 months)
Successfully onboarded & pre-processed sensor array data from a client (JSW Steel, Vijaynagar) to a Logstash pipeline for predictive analysis on the proprietary 4PointX platform built using the ELK stack.

Research Intern (Freshman year), Center for Internet of Things

PES University
Aug 2021 - Jan 2022 (6 months)
Prepared documentation for and programmed the neural network architecture using PyTorch for an ongoing research project aimed at predicting ideal listening volume using artificial neural networks.

Education

PES University

Bachelor of Technology - BTech, Computer Science
Dec 2020 - Oct 2024
• GPA : 3.24 / 4 (Upon completion of year 2)
• Relevant coursework : Data Structures in C/Python, Design & Analysis of Algorithms, Microprocessor & Computer Architecture, Operating systems, Shell programming, Calculus (1, 2 & 3), Linear Algebra, Statistics, Electronic Systems, Elements of Electrical Engineering, Engineering Physics, Static Mechanics, Basics of Mechanical Engineering Sciences.
• Secured the runner up position in two on-campus hackathons for developing the tech stack for two autonomous path following robotic systems capable of cloud based data collection, analysis, simulation and Aruco marker based communication.
• <Elaborate on SIH '22>

Skills

Python (Programming Language) • OpenCV • C++ • C (Programming Language) • Linux • NumPy • Pandas (Software) • PyTorch • Git • Communication