PEDAKOLIMI HARISH

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CAREER OBJECTIVE

Seeking a satisfying and rewarding opportunity that offers and meets professional growth and as well as the organizational goals

WORK EXPERIENCE

ROS Developer – Kelvin6k Technologies Private Limited – Chennai **Apr 2024 – Present**

- Conceptualize, develop, and deploy **ROS-based** software solutions geared towards orchestrating the movements of our SCARA robotic arm in the realm of 3D construction printing applications.
- Foster collaboration with hardware engineers to seamlessly fuse software functionalities with hardware components, ensuring flawless integration and peak performance of the robotic arm.
- Engineer **algorithms** and execute **motion planning techniques** to optimize the trajectory of the robotic arm, aiming for precision and efficiency in 3D printing endeavors.
- Innovate by **designing and developing fresh web interfaces** and machine language code specific to 3D printing, while also programming user-friendly Human-Machine Interfaces (HMIs) for motion control systems.

Mentor (Volunteer) – Sure Trust (NGO) – WFH **Present**

- Guide and support undergraduates in understanding and applying robotics concepts through hands-on learning and practical exercises.
- Teach essential robotics principles, fostering a deep understanding of theoretical and practical aspects, including programming, mechanics, and electronics.
- Dedicate time and expertise on a voluntary basis, contributing to the academic and professional growth of students passionate about robotics.

Jr. Robotics Engineer – AI BAR – WFH **Dec 2021 – Oct 2023**

- **Designed, executed, and validated** cutting-edge features and algorithms in **ROS**, ensuring seamless integration into the robotic systems
- Successfully integrated, tested, and debugged software solutions in simulation environments and on tangible robotic platforms
- Collaborated effectively with **cross-functional teams** including software developers, hardware engineers, operations personnel, and other stakeholders
- **Building protypes** for different robots and IoT devices
- Demonstrated leadership skills by **mentoring** and guiding fellow members of the robotics team in achieving their professional development goals

EDUCATION

B-Tech, Mechanical Engineering (GITAM University – Visakhapatnam) **2016 – April 2020**

Masters, APPLIED MECHATRONICS AND ROBOTICS Engineering (IIT Bhilai)
2024 – Present

PROFESSIONAL SKILLS AND CERTIFICATIONS

- Professional Skills
  ROS/ROS2, Navigation Stack, IoT, Sensors, Digital Twin, OpenCV, Machine Learning, Algorithms, Moveit2, 3D Printing, Robot Operating
- Software Skills
  AutoCAD, Fusion 360, Linux, Git, Simulation, Gazebo, Micro Ros
- Programming Languages
  C, C++, Python.
- Platforms
  Raspberry pi, Arduino, ESP32, STM32

PROJECTS

Humble Robots (Ros2 Humble) **Oct 2024 – Present**

- Facilitate beginners in learning ROS2 through an open-source platform featuring diverse robot models and a rich library of plugins.
- Diverse robot models for hands-on exploration of robotics concepts.
- Extensive plugin library covering essential ROS2 functionalities.

Yantrik Hast **Nov 2024 – Present**

- Developing a 6 Degrees of Freedom (DOF) robot arm tailored for videographers with a payload capacity of 2 kg.
- The robot arm should possess a reachability of approximately 60 cm, ensuring flexibility in capturing various angles and shots.
- Designed as a desktop robot, it will be compact and easily integrated into a videographer's workspace.
- The primary application of this robot arm is for YouTube content creation, offering videographers precise control and versatility in their camera setup.
- Future expansion includes the integration of a robot car for seamless movement and dynamic camera shots, enhancing the videography capabilities**.**