GOWRESH RAJAGOPAL

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Languages: Tamil, Telugu, English and Deutsch

WORK EXPERIENCE

LEAD TECHNOLOGIST – AUTONOMOUS MOBILE ROBOTS   **09/2022 – Present**
Maxbyte Technologies, Dubai, UAE
- Design, Development and Integration of Autonomous Mobility Platform for Industrial Vehicles
- Integration and Deployment of Autonomous Mobile Robots for Shopfloors

LEAD ROBOTICS ENGINEER   **05/2018 – 08/2022**
Maxbyte Technologies, Coimbatore, India
- Explored about the best practices of Mobile Robots and identified the tools and technology required for cost-effective prototype development of an Autonomous Mobile Robot
- Led a two-member team towards successful prototype development and demonstration of a functional mobile robot platform in 3 months using ROS (Robot Operating System)
- Successful development and integration of a Brain Computer Interface (BCI) System with mobile robot prototype
- Successful integration of an AR (Augmented Reality) system with the mobile robot prototype to demonstrate Remote Teleoperation of a Mobile Robot for Factory Monitoring
- Successful integration of a Block Chain technology with Mobile Robot to demonstrate the Functionality based Transaction of a Mobile Robot
- Successful development of HTML based Web Application for Mobile Robot Prototype
- Created a positive work environment by demonstrating and sharing functional and technical knowledge
- Successful development of Android based Mobile Application for Mobile Robot Prototype using Android Studio
- Assisted in development of iOS based Mobile Application for VR based Component Visualization using Unity and Xcode
- Successful simulation development of Vision based Smart Inspection System using Vrep
- Directed and managed the design and implementation of path planning, autonomous navigation, object recognition and identification, System UX, Blockchain Technology based Transaction for robots
- Led a four-member team towards successful development of Autonomous Mobile Platforms for deployment in Manufacturing Sectors for Material Movement
- Led a four-member team towards successful development of Autonomous Mobile Platforms for deployment in Industrial Environments for Autonomous Industrial Housekeeping
- Led a four-member team towards successful prototype demonstration of Autonomous Mobile Robots for Healthcare facilities during Covid-19 pandemic
- Successful simulation development of an Autonomous Forklift for Pallet Movement using Gazebo
- Development, Integration and Deployment of Autonomous Pallet Truck in a Construction Equipment Manufacturing Plant
- Development, Integration and Deployment of Industrial Autonomous Cleaning Vehicles

EDUCATION

HERIOT-WATT UNIVERSITY   **2022-2023**
MSc in Robotics

PSG COLLEGE OF TECHNOLOGY   **2014-2018**
Bachelor's Degree in Production Engineering

PSG POLYTECHNIC COLLEGE   **2011-2014**
Diploma in Mechatronics

PROFESSIONAL SKILLS

- Advanced experience in Robot Operating System (ROS) Framework for development, testing and deployment of Autonomous Mobile Robots
- Active involvement and contribution across ROS Community
- Intermediate level exposure to ROS2 Framework
- Experience of leading a 4-member team in developing control systems for Autonomous Submarines through ROS Framework
- Proven experience in many software tools like ROS based RoboWare, Android Studio, Unity and Xcode
- Proficiency in Linux Frameworks with the ability to develop and deploy firmware across multiple platforms
- Proficiency in ReactJS andDocker Containerized Application Development,
- Proficiency in ARM-based controller boards like Raspberry Pi, ASUS Tinker Board
- Excellent collaboration/communication skills (verbal, written, listening and presentation)
- Programming skills in MATLAB using Image Toolbox
- Proven programming skills in many high-level languages (C/C++, Python, Lua, Java, HTML)
- Demonstrated engineering experience in Mobile Robot Development, Testing and Deployment
- Demonstrated experience in Robot Kinematics, Dynamics, and Control
- Demonstrated experience in developing UI functionalities for robots through Web Applications and Mobile Applications (Android)
- Exposure to iOS App Development through Unity Cloud and Xcode
- Demonstrated experience in block chain-based transaction for robots
- Demonstrated experience in Brain Computer Interfaces (BCI) with robots
- Demonstrated experience in AR/VR based Robot Visualization, Localization and Control
- Demonstrated experience in working with open-source vision-based libraries like OpenCV for Image Processing and Analysis
- Docker based deployment of ROS solutions and ReactJS based web applications
- Exposure to Quadruped Robots' Kinematics and Control
- Currently engaged in an advanced thesis project focusing on the implementation of pedestrian collision avoidance systems in autonomous vehicles, utilizing the PixMoving Vehicle platform.