Shriman Raghav Srinivasan

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Education

Northeastern University Boston, MA
Master of Science in Robotics; GPA: 3.78 *September 2024 – August 2026*
- Relevant Courses: Robot Sensing & Navigation, Mobile Robotics, Control Systems, Deep Learning for Robotics

SRM Institute of Science & Technology (SRMIST) Chennai, India
Bachelor of Technology in Mechatronics Engineering; GPA: 3.81 *June 2018 – May 2022*
- Relevant Courses: Mechatronics Systems, Industrial Automation, Fundamentals of Robotics, Control Systems

Experience

Manufacturing Equipment Engineer Intern April 2025 – December 2025
Tesla Inc. *Fremont, CA*
- Led field deployment of autonomous forklift AMRs performing installation, commissioning, and site acceptance testing (SAT) with SLAM, LiDAR, and perception systems achieving $2.04M projected savings
- Executed end-to-end commissioning of AGV fleet including I/O configuration, network setup, sensor calibration, and live order testing, ensuring operational readiness and on-time project delivery for 47 vehicles
- Owned troubleshooting and escalation resolution for robotics deployments, conducting DFMEA-driven root cause analysis on control instabilities and achieving 35% reduction in system downtime through systematic debugging
- Collaborated with cross-functional teams (operations, IT, facilities) to coordinate deployment schedules, capture lessons learned, and drive continuous improvement initiatives across deployment engineering processes

Robotics Engineer – Projects July 2022 – August 2024
Hero MotoCorp Ltd *Neemrana & Tirupati, India*
- Spearheaded installation and commissioning of ABB and Mitsubishi robotic arms for lithium-ion battery assembly, performing FAT/SAT validation, I/O configuration, and operator training reducing cycle time by 12%
- Integrated inclined roller conveyor with Allen Bradley PLC using ladder logic, performing wiring verification, control logic checkout, and site acceptance testing improving throughput by 22%
- Led on-site troubleshooting and maintenance of robotic systems, interpreting electrical schematics, calibrating sensors, and resolving equipment failures to maintain 94.7% production line availability

Projects

Autonomous Robot Deployment with SLAM Integration October 2024 – November 2024
- Deployed autonomous robot system integrating RTAB-Map SLAM, ZED Mini stereo camera, and IMU in ROS2, performing sensor calibration, network configuration, and system validation achieving 0.8cm positioning accuracy
- Executed commissioning workflow including hardware setup, software deployment, integration testing, and performance verification for GPS-denied indoor navigation applications

Multi-Sensor Navigation System Deployment September 2024 – November 2024
- Built and deployed custom ROS2 sensor drivers for GPS and VectorNav IMU on automotive platform, performing hardware interfacing, calibration procedures, and system integration at 40Hz data acquisition rate
- Conducted field testing and validation achieving 2.3m positioning accuracy over 3km, documenting deployment procedures and capturing lessons learned for continuous improvement

Mobile Robot System with Controller Validation January 2025 – April 2025
- Developed and validated robotic navigation system integrating PRM path planning with trajectory controllers, performing systematic benchmarking of PID, LQR, MPC, and SMC across 7 test environments
- Achieved 23% performance improvement with MPC, documenting test results and operational procedures for deployment readiness assessment

Technical Skills

Deployment: Installation, Commissioning, FAT/SAT, Site Acceptance Testing, Troubleshooting, Field Engineering, System Integration, Operational Readiness, Quality Hand-off, On-Time Delivery

Robotics: SLAM, Sensor Calibration, I/O Configuration, Network Setup, PLC Programming, Motion Control, AMR Systems, Industrial Robots (ABB, Mitsubishi, Fanuc)

Programming: Python, C++, MATLAB/Simulink, Ladder Logic, Structured Text

Software: ROS 2, Gazebo, Allen Bradley RSLogix, Siemens TIA Portal, Docker, Git, Linux/Ubuntu

Hardware: PLC (Allen Bradley, Siemens), LiDAR, Cameras, IMU, NVIDIA Jetson, HMI, VFDs, Sensors

Certifications: Deep Learning, Reinforcement Learning, Mechanism & Robot Kinematics, Systems Engineering