

Education and Certifications:

Master of Science, Robotics - *NYU Tandon Institute of Technology, 2021*

Work History:

Senior Mechanical Engineer, Openmind AGI

3/2025 - Present

- Led a team of 2 engineers for the ground up DFMA build of a new attachable robotics hardware platform with CAD, rapid prototyping and FEA using SOLIDWORKS, Altium and 3D printing
- Conducted 0-1 hardware product bring-up for in-house sensor platform, calibrating LiDARs, depth cameras over J1939, optimizing for ROS2 integration
- Developed ROS2 and CycloneDDS feature pipelines for quadruped robot navigation, including Nav2 and teleoperation
- Created custom wiring and electrical sensor integrations for hardware platform using Altium, managing hardware validation testing through local deployments

Mechatronics Engineer 2, Daimler RG, Sunsoft Technologies-DTNA Portland

10/2022 - 2/2025

- Led a team of 3 engineers in powertrain feature testing with a collaborative, results-driven approach—excelling in strategic planning, scheduling, and KPI analysis
- Created a cross-functional tool and workflow for fault investigation, demonstrating proactive initiative and creativity that increased monthly closed faults by 104%
- Conducted detailed software audits and spearheaded powertrain ECU investigations, underscoring meticulous attention to detail and strong analytical skills
- Performed powertrain test fault investigations with SIMULINK, BOM management and GD&T inspections on part drawings

Robotics Engineer, Celestica

7/2021 – 10/2022

- Conducted DFM analysis, hardware prototyping, and troubleshooting of complex robotics systems
- Engineered a comprehensive SLAM pipeline for mobile robots using ROS2 and Gazebo, transforming blueprints into functional prototypes with technical excellence
- Integrated a KUKA arm for ACT 2023 using ROS2, MOVEIT for a 31% increase in customer interest
- Simulated then prototyped a conveyor-based system that achieved a 27% decrease in cycle time
- Led FMEA and Root Cause Analysis for client robotic designs, emphasizing meticulous attention to detail and a dedication to continuous improvement

Projects:

Mobile 3D Printer Arm (ROS):

- Implemented a 3D printing extension using a UR10 arm, with custom nozzle, tooling, and localization.
- Integrated Intel Realsense cameras for computer vision systems using PyTorch for defect recognition.
- Implemented MOVEIT libraries for custom automation and manufacturing trajectories with ROS2.

Tremor Damping Glove for Parkinson's

- Designed a 3D printed glove with mounted Arduino NANO and microrotors to counteract hand tremors.
- Collaborated with NYU Langone - Fresco Institute for product trials with Parkinson's patients.

Technical Skills:

- Localization, SLAM, Path Planning & Motion Control - ROS, MATLAB, SIMULINK
- CAD - SOLIDWORKS, Ansys, Catia V5 and UDS/CAN Analysis - CANAPE, CANalyzer

AMEYA PHADKE

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- Tools - JIRA, Tableau, Siemens TIA
- Languages - Python, C++, C#, HTML, CSS, LaTeX, R
- Certified Catia V5, Dassault Systemes – July 2017