Sanjeev S. Godbole

godbole.sanjeev@gmail.com | linkedin.com/in/sanjeevgodbole | sanjeevgodbole.github.io | (408) 640-5600

EDUCATION

Santa Clara University — Santa Clara, CA
Master of Science in Robotics and Automation — *June 2026*
Selected Coursework: Advance Mechatronics, Advance Driving Assistance Systems, Artificial Intelligence, Reinforcement Learning

Birla Institute of Technology and Science — Pilani, IN
Bachelor of Technology — *Jan 2024*
Selected Coursework: Mechatronics and Automation, Engineering Design, Essentials of Project Management, IOT in Manufacturing

SKILLS

Programming Languages: Python, Matlab, KAREL (FANUC), RAPID (ABB), KRL (KUKA), INFORM(YASHKAWA)
Software, Simulation and AI: ROS/ROS2, Isaac Sim, Gazebo, Linux Git, OpenCV, TIA Portal, YOLOV8, Docker, Jira, E-Plan, Fusion360, CAD
Hardware and Platforms: NVIDIA Jetson Orin Nano, SICK, Cognex, Hikvision, iRayple, Keyence
Core Concepts and Design: Robotics system engineering, Hardware-software integration, Electromechanical Debugging, HMI Design
Digital Twins, Virtual Commissioning, HIL Validation, Sensor Fusion, Kalman Filtering
Functional Safety and Standards: ISO 12100, ISO 13849, IEC 62061, IEC 60204, ISO 26262, IEC 61131-3
Professional Skills: Project Planning and Management, Risk Mitigation, Stakeholder Alignment, Cross Functional Leadership, Negotiation

EXPERIENCE

Unbox Robotics — Pune, IN
Robotics Systems Engineer — *July 2022 – June 2024*

- Streamlined **Automated Guided Vehicles (AGV's) cycle times by 5%** by unifying electromechanical-software integration and tuning sensor-to-control feedback loops.
- Enhanced **obstacle detection** and **diminished manual recalibration by 40%** through multi-brand vision system (SICK, Cognex Keyence) and LiDAR integration.
- Boosted AGV drivetrain **efficiency by 20%** by spearheading BLDC motor (Maxon) and sensor testing/ implementation.
- Accomplished **high system uptime** by designing **Siemens S7-1200 PLC** control logic for robotic systems, synchronizing mechanical and software workflows to minimize downtime.

Lemon Robotics — Pune, IN
Senior Robotics Engineer — *Sep 2021 - June 2022*

- Improved car **assembly productivity by 15%** via deployment of 3D vision-guided robotic arms (Fanuc, ABB).
- Delivered custom automation solutions, **cutting down cycle times and ensuring 99.5%** system reliability through client requirement translation.
- Standardized QC station electrical layouts with E-Plan schematics, minimizing wiring **errors by 30% and accelerating commissioning by 3 weeks/project.**

Velankani Electronics — Bengaluru, IN
Member of Technical Staff — *July 2020 - Sep 2021*

- **Slashed manual PCB handling by 50%** and **lifted line productivity by 20%** by deploying **Fanuc LR Mate 200iD** robots and re-sequencing work cell flow.
- **Simplified PCB defect escape rates by 35%** by deploying Cognex vision inspection systems for real-time quality assurance.
- **Increased throughput** and **decreased equipment downtime** by championing cross-functional PCB process redesign.

Wipro PARI — Pune, IN
Member of Build Controls — *July 2018 - July 2020*

- **Attained ±0.05mm repeatability** and **99.9% process accuracy** by programming FANUC, YASKAWA, ABB, and KUKA robots for automotive assembly.
- Refined 5+ automotive assembly lines (JCB, TATA, HERO MOTO CORP), increasing throughput by 30% within 8 months and facilitating 500K+ annual unit production.
- Decreased operational errors and rework costs by redesigning robotic tooling workflows.

PROJECTS

Industrial Digital Twin for Virtual Commissioning

- Shortened **commissioning forecast by 40%** and **lifted cycle efficiency 15%** by implementing a **Siemens S7-1500 PLC digital twin with Isaac Sim** and validating scenario virtually.

AI-Driven Robotic Grasping in Cluttered Environments

- Achieved **a 95% grasp success rate** by deploying a perception to action pipeline and validating real time performance **via HIL on Jetson Orin Nano.**

Warehouse Dimensioning System

- Cut **sorting errors 25%** by implementing a **Sick 3D vision** dimensioning cell and tuned point-cloud thresholds to **±5 mm accuracy.**

CERTIFICATIONS

- **Advanced Driver Assistance Systems (ADAS)** - *Udemy*
- **Getting Started with AI on Jetson Nano** - *NVIDIA*
- **OpenCV Bootcamp** - *OpenCV University*