

Saiteja Venkateshwa Rao Dasari

Robotics Engineer — Autonomy & Controls — ROS2, Motion Planning, Systems

(480) 749-7265 — totobotplus@gmail.com — Tempe, Arizona — saitejadasari.com
linkedin.com/in/saiteja-venkateshwa-rao-dasari — github.com/dstejagit09

SUMMARY

Robotics M.S. candidate (ASU, GPA: 3.89/4.0) focused on autonomy, motion planning, and controls. ROS2 multi-robot coordination (A*, Hungarian) and OpenCV perception across simulation + hardware; Python/C, MATLAB/Simulink, Linux.

EDUCATION

Arizona State University <i>M.S. Robotics and Autonomous Systems (Systems Engineering), GPA: 3.89/4.0</i> <ul style="list-style-type: none">• Coursework: Aerial Robotics, Mechatronics, Multi-Robot Systems, Controls and Systems	Aug 2024 – May 2026 Tempe, AZ
Chaitanya Bharathi Institute of Technology <i>B.E. Electrical and Electronics Engineering</i>	Aug 2020 – May 2024 Hyderabad, Telangana

PROJECTS

Multi-Robot Task Allocation & Navigation <ul style="list-style-type: none">• Built a centralized ROS2 autonomy stack in Gazebo for 5 TurtleBots enabling concurrent missions• Implemented Hungarian assignment + A* planning with costmap collision avoidance; validated on 10+ scenarios (99% success). Tech: ROS2, Gazebo, Costmaps, Python/C++	Dec 2025
Maze Solving & Path Planning (myCobot600, 6-DOF) <ul style="list-style-type: none">• Built an OpenCV pipeline for maze detection and occupancy-grid generation on an 8x8 grid using 2 ArUco markers• Computed A* paths and executed waypoint trajectories via myCobot600 motion control; achieved 60 s planning time. Tech: OpenCV, Python, ArUco, Occupancy Grid, A*	Dec 2024
Crop Weed Detection using ROSMaster X3 <ul style="list-style-type: none">• Deployed a real-time ML-based object detection and classification system on ROSMaster X3 for precision agriculture using 3000 Samples of crop/weed classes• Integrated ROS inference and visualization nodes for robotic decision-making; achieved 97% detection accuracy at 12 FPS. Tech: ROS, Python, OpenCV, YOLOv8, ROSMaster X3	May 2025
Fault-Tolerant Control of Crazyflie Quadrotor <ul style="list-style-type: none">• Designing a fault-tolerant control architecture with FDI and controller reconfiguration; validating in ROS-based simulation and Crazyflie hardware flight tests. Tech: ROS2, Python, Controls, FDI, State Estimation, Crazyflie	Jan 2026 – Present
Autonomous Drone Landing on a Moving Platform <ul style="list-style-type: none">• Designed landing control logic in MATLAB/Simulink (digital twin); validated across 25+ simulation trials• Implemented onboard vision tracking on a Parrot Mambo to land within 8 cm of a moving platform. Tech: MATLAB/Simulink, OpenCV, Parrot Mambo	May 2025

EXPERIENCE

Honeywell Extern <i>Arizona State University Collaborative Research Project</i> <ul style="list-style-type: none">• Built an AI-driven training simulation platform integrating LLM-based agent behaviors and real-time communication analytics• Created evaluation dashboards for training effectiveness; enabled 20+ stakeholder reviews for reducing the attrition rate of 54% rate among the ATC trainees. Tech: Python, LLM framework, Data Visualization	Aug 2025 – Present Tempe, AZ
Teaching Assistant / Instructional Aide <i>Arizona State University (Intro to MATLAB Programming; Controls & Systems Lab)</i> <ul style="list-style-type: none">• Supported 90+ students across 5 lab sections; ran office hours and review sessions for MATLAB and controls.	Jan 2025 – Present Tempe, AZ
Production Engineering Intern <i>Marut Drones (IIIT-Hyderabad)</i> <ul style="list-style-type: none">• Integrated and validated electronic/mechanical subsystems across multi-rotor platforms; improved production efficiency by 15%.• Configured ArduPilot/Mission Planner for a P80 heavy-payload platform; improved stability metrics by 5%. Tech: ArduPilot, Mission Planner, PID, Flight Logs	Oct 2023 – Mar 2024 Hyderabad, Telangana

SKILLS & CERTIFICATIONS

Languages: Python, C, MATLAB — **Tools:** Linux, Git, Jupyter, SolidWorks
Robotics: ROS1/ROS2, Gazebo, RViz, tf2, URDF/xacro, ArduPilot, Mission Planner
Autonomy/Perception: A*, Hungarian, Occupancy Grids, OpenCV, Object Detection, Sensor Fusion, State Estimation
Controls: PID, MATLAB/Simulink, FDI, Controller Reconfiguration, Flight Log Analysis
Certifications: Universal Robots e-Series (Core + Pro); MathWorks AI; Hugging Face RL; Udemy ROS/ROS2
Publication: SCADA-Based Substation Control Panel & Operations