

ABHISHEK CHOTHANI

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EDUCATION

Florida Institute of Technology | Melbourne, Florida, USA Jan 2023 – Dec 2024
Master of Science in Mechanical Engineering | Specialization in Robotics and Automation
Thesis: End-to-End Learning for a Low-Cost Robotics Arm, advised by [Dr. Ryan White](#)

Gujarat Technological University | Ahmedabad, Gujarat, India Aug 2017 – May 2021
Bachelor of Engineering in Mechanical Engineering

RESEARCH EXPERIENCE

Research Assistant | NEural TransmissionS ([NETS](#)) Lab | Melbourne, Florida Jan 2024 – Dec 2024

- Explored **imitation learning** and **reinforcement learning** for custom 6 DOF robotic manipulators using tools like **PyTorch**, **Drake**, **Isaac Sim**, and **Isaac Lab**.
- Explored approaches including **Action Chunking with Transformers (ACT)**, **Diffusion Policies** and **PPO** achieving a high success rate in dynamic manipulation tasks.
- Conducted comparative analysis of classical robotics vs. AI-driven methods for industrial adaptability. ([Master's Thesis Link](#))

WORK EXPERIENCE

Robotics Project Developer Intern | Kennedy Space Center Visitor Complex | FL June 2024 – Jan 2024

- Designed and built a functional NASA Perseverance Rover model using **Fusion 360**, **Raspberry Pi**, and **STM32**.
- Developed real-time motion control with **ROS2**, **C++**, and **PID algorithms**.
- Integrated IMUs, ultrasonic sensors, and cameras for autonomous operation. ([Project Link](#))

Mechanical Engineer Intern | Jaycon Systems | Melbourne, Florida Sep 2024 – Dec 2024

- Designed and tested AR device components using **Fusion 360** and **ANSYS**.
- Deployed deep learning-based object detection/tracking on **NVIDIA Jetson Orin** using **YOLO** and **OpenCV**. ([Project Link](#))

Robotics Engineer | BandG Robotics | Ahmedabad, India Jan 2021 – Dec 2022

- Developed robotic manipulator control using **ROS** and **Python**.
- Optimized CNC manufacturing using **SolidWorks** and **Mastercam**.

SKILLS

- **Programming:** Python, C/C++, MATLAB, PyTorch, ROS and ROS2, OpenCV, PX4 autopilot
- **Simulation:** Isaac Sim, Drake, Gazebo
- **CAD/CAM:** Fusion 360, SolidWorks, Ansys, Mastercam

PROJECTS

- **Bipedal Training of Spot using IsaacLab & PPO (2025)** – ([Project Link](#))
- **ROS Noetic Tutorials (2024)** – Step-by-step tutorials for learning ROS Noetic. ([Project Link](#))
- **Pan and Tilt Object Tracking (2024)** – Tracking system using YOLO. ([Project Link](#))
- **Gesture-Controlled Drone (2023)** – Vision-based Drone Control using PX4. ([Project Link](#))
- **ARM Cortex-M4 Development (2023)** – Embedded programming with RTOS. ([Project Link](#))