

Anthony Angeles

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Languages: Python, C++, Full Stack, C#

Skills: 3D Perception, Simulation, Path Planning, Containerized Workflows, ROS2, Unity3D

Experience

Software Engineer – Isaac Sim, Robotics Learning Platform

NVIDIA | Santa Clara, CA

December 2024 – Present

- Implemented ROS2 publishing for odometry in Isaac Sim from 2D to full 3D motion data, including linear and angular velocities on the X, Y, and Z axes.
- Implemented unit tests to ensure functionality and regression coverage for ROS2 odometry publishing pipelines.
- Integrated multiple AMR configurations into simulation-based ROS2 unit tests to validate generalized odometry behavior across robot types.
- Developed unit tests for ROS2 Action Graphs generated using shared OmniGraph utilities, ensuring reliability and system integration across workflows.
- Created new UI functionality for Surface Gripper and right-click menu, enabling one-click insertion of Surface Gripper Prims at the selected scene path.

Software Engineer – PDE for Geforce, Internal Platform Development

NVIDIA | Santa Clara, CA

July 2024 – Present

Intern: Summers 2021, 2022, and 2023

- Lead technical developer for an internal platform supporting high-throughput data workflows across cross-functional teams.
- Implementing major development initiatives integrating critical services into the core platform, expanding its capabilities and scope.
- Architect-ed new back-end modules and APIs to support internal tools and automation.
- Integrated parallel computing into workload pipelines to improve concurrency and reduce execution time.

Research Experience

Research Assistant – AIEA Lab, Baskin School of Engineering

Advisor: Leilani Gilpin

Santa Cruz, CA

Mar 2024 – Jun 2025

- Contributed to on-going research for the Waymo Open Dataset Competition, focused on Motion Planning and 3D Object Segmentation.

Research Assistant – VR Lab, Baskin School of Engineering

Advisor: Samir Ghosh

Santa Cruz, CA

Nov 2022 – Sept 2023

- Developed a computer vision pipeline to detect flammable objects in equirectangular VR imagery for immersive training applications.
- Integrated YOLOv8 and Detectron2 to perform real-time object segmentation and labeling.
- Contributed to a research publication using this tool submitted to CHI.

Projects

A* Path Planning Environment

C#, Unity

May 2024

- Implemented a fully autonomous agent using pathfinding to follow the shortest path to a target in a dynamic environment.
- Designed an interactive 3D environment where users can place obstacles and observe real-time path planning.
- Implemented an agent using an A* algorithm that dynamically re-plans paths based on the user-modified environment.

Education

University of California, Santa Cruz

B.S. Computer Science

Dean's Honor List

Expected June 2025