Sergio Orozco

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EDUCATION

Brown University	May 2024
Masters of Science in Computer Science	*GPA: 4.00*
University of Colorado at Colorado Springs	May 2019
Bachelor of Science in Computer Science	*GPA: 3.85*

PUBLICATIONS

CoRL 2023 — **Synthesizing Navigation Abstractions for Planning with Portable Manipulation Skills**. *Eric Rosen, Steven James, **Sergio Orozco**, Vedant Gupta, Max Merlin, Stefanie Tellex, George Konidaris.*

NeurIPS 2023 — **Robot Task Planning under Local Observability**. *Max Merlin, Shane Parr, Neev Parikh, **Sergio Orozco**, Vedant Gupta, Eric Rosen, George Konidaris.*

TEACHING

Teaching Assistant - Introduction To Robotics — September 2023 – Present
Brown University — *Providence, Rhode Island*

- Helped students develop and deploy robotic drones equipped with safety restrictions, networking capabilities, state estimation, controls, and high-level planning.

EXPERIENCE

Research Assistant — September 2022 – Present
Brown University — *Providence, Rhode Island*

- Assisted and conducted published research in Humans to Robots Laboratory and Intelligent Robot Laboratory.
- Developed a testbed on a Boston Dynamics Spot robot which facilitated research on two projects.
- Equipped Spot to recognize ≈ 10 household items along with their corresponding locations and grasps which equipped researchers to test a multitude of novel task planners.

Flight Software Engineer — June 2021 – September 2023
York Space Systems — *Denver, Colorado*

- Designed and developed simulation software to emulate over 40 payload and critical bus components for York's S-Class satellites.
- Simulated over 500 commands and over 1,000 telemetry items processed by the onboard flight computer.
- Provided customers with the capabilities of York's 5 million dollar S-Class Satellite for testing without needing to provide any actual hardware.
- Designed and developed Store and Forward capabilities on York's S-Class satellite to ingest over 100 Jreap Messages per second using Google Protocol Buffers.
- Exposed to multiple messaging protocols such as Nano Satellite Protocol and Google Protocol Buffers.
- Participated in several technical software interviews to search for potential talent amongst applicants.
- Technologies Used: C# .NET, Google Protocol Buffers, C, CMake, Make, Docker, Coverity.

Software Engineer — June 2019 – May 2021
Sierra Nevada Corporation — *Denver, Colorado*

- Developed and maintained a 23 million dollar simulation program that emulated realistic signals intelligence for the United States Air Force.
- Communicated and collaborated with users to create realistic radio signals.
- Developed mission application systems for over 200 MH-60 helicopters capable of displaying IR video feed and Cursor on Target data to a world map.
- Lead and mentored college interns to develop proprietary tools for the company.
- Technologies Used: C# .NET, Reactive, Python, Windows Presentation Forms, Windows Form Application.

Skills

Languages: C# .NET, Python, C, C++
Deep Learning/Data Libraries: Tensorflow, Keras, Numpy TensorRT, PyTorch
UI Frameworks: Windows Presentation Forms, Windows Form Application, Kivy, Tkinter
Robotics: Robot Operating System
Containers: Robot Operating System
Parallel Computing: Dask