DANIEL PERALTA

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EDUCATION

Los Angeles Harbor College — *Aug. 2017 - Jun. 2021*
Associates in Liberal Arts and Sciences

University of California, Santa Cruz — *Sep. 2021 - Mar. 2024*
Bachelor of Science in Computer Science

California State University Long Beach — *Expected Graduation, May 2026*
Pursuing *Masters in Computer Science*

EXPERIENCE

Food Service Worker — *Sep. 2022 - Jun. 2023*
University of California, Santa Cruz
- Assisted cooks, cleaned tables, and washed dishes.
- Served meals to thousands of students.

Event Staff / Tech Crew — *Sep. 2023 - Mar. 2024*
University of California, Santa Cruz
- Provided technical support for events at UCSC.
- Assembled and operated sound, video, and lighting equipment.
- Awarded for service and leadership to the College Nine community.

RESEARCH

Flexible Scenario Generation for CSP in Godot — *https://arxiv.org/abs/2412.18408*
- Collaborating with Dr. Xin Qin, researching methods to simplify testing the safety of cyber-physical systems.
- Developing a pipeline that takes satellite road images and generates road meshes inside a simulator.
- Presented at the 16th ACM/IEEE International Conference on Cyber-Physical Systems in Irvine, USA.

PROJECTS

Parking App for UCSC | *HTML, CSS, JavaScript, Node.js, Leaflet.js Library, Docker, Git*
- Developed a web application for students to view and report the statuses of parking lots around UCSC.
- Collaborated with a team while utilizing SCRUM to manage development.
- Collected and recorded data on parking lots around campus.
- Presented the project in person to other computer science students.

Behavior Tree Agent | *Unity, C#, Git*
- Implemented a behavior tree for an agent that collects treasure and avoids enemies.
- Developed a simple procedural-level generation system for the agent to traverse.
- Presented virtually to other students interested in artificial intelligence in video games.

Multi-Class Image Segmentation on Cars | *Python, TensorFlow*
- Trained a model to accurately perform semantic segmentation of vehicle parts with Tensorflow.
- Utilized U-Net architecture, dataset augmentations, class weight balancing, and one-hot encoding.

TECHNICAL SKILLS

Programming Languages: Python, HTML, CSS, JavaScript, GDScript, C#
Developer Tools: VSCode, Git, React, TailwindCSS, Flask, NodeJS, Express, Godot, Unity, Linux
Media Tools: Adobe Premiere/DaVinci, Photoshop, Open Broadcaster Software
Office Tools: Microsoft Word, Excel, PowerPoint
Setting up and operating audio, video, and lighting equipment