

Leonardo Miguel Calle Loor

San Jose, CA | (415) 361-1341 | lcalle593@gmail.com | www.linkedin.com/in/leonardo-calle-loor/

Education

MS in Mechanical Engineering	GPA: 4.00	San Jose State University	May 2028
BS in Mechanical Engineering, Robotics Minor	GPA: 3.67	San Jose State University	May 2026
AA in Arts, AS in Mathematics, AS in Physics	GPA: 3.53	Skyline College / College of San Mateo	May 2024

Technical Skills

CAD: SolidWorks, Fusion360, SpaceClaim, KiCad, GD&T

Professional Tools: VS Code, JIRA, Google Workspace

Prototyping: Soldering, FDM & SLA 3D-Printing, Machining

Simulation: SolidWorks, Ansys

Programming: Python, MATLAB, LabVIEW

Languages: Fluent English, Fluent Spanish.

Work Experience

Robot Pilot, Figure - San Jose, CA

June 2026 - Present

- Teleoperate humanoid robots to execute complex tasks, creating high-quality behavioral data used to refine AI models
- Diagnose and troubleshoot robotic hardware and operational issues

Robotics Research Assistant, SJSU BioRobotics Lab - San Jose, CA

Aug 2025 - June 2026

- Reverse-engineered two 7-axis arm support assemblies using CAD to explore kinematics and force distribution
- Engineered an arm pressure sensor using an array of force-sensitive resistors, custom test fixtures, and MicroPython-based data acquisition, achieving <10% measurement error

Mechanical Design and Analysis Intern, Lawrence Berkeley National Laboratory - Berkeley, CA

Jun 2025 - Aug 2025

- Generated simulation-ready CAD models of the Mayal 4-m telescope assembly from drawings using SpaceClaim
- Created new telescope structure proposals to fit a larger 6-m mirror, utilizing FEA simulations in Ansys to validate and optimize geometries

Industrial Systems Engineering Intern, SJSU Industrial Training and Assessment Center - San Jose, CA

Sep 2024 - Jun 2025

- Conducted energy audits for manufacturing facilities, identifying 900,000+ kWh/year and \$130,000+/year in savings
- Developed Python and Excel models to quantify energy savings and validate audit recommendations

Engineering Assistant, Caltrans District 4 - Oakland, CA

Jun 2023 - Aug 2024

- Developed preventive maintenance programs for the mechanical systems (HVAC, power distribution, pumps, lighting, and surveillance) of three tunnels, improving safety and reducing annual maintenance costs by \$210,000+

Fabrication, Physics, Materials Science Lab Technician, Skyline College - San Bruno, CA

Sep 2022 - Jul 2024

- Led 25+ workshops teaching CAD, 3D printing, and soldering to interdisciplinary student groups of 6-15 participants
- Supported students, enforced lab safety protocols, and ensured all equipment was in good condition and ready for use

Project Experience

Team Manager & Hardware Lead, Robotic Arm Assisted Shoulder Rehabilitation System

Aug 2025 - Present

- Designed 5 iterations of an ergonomic arm brace to interface patients with the robot
- Managed a 4-person team using JIRA for task tracking and sprint workflow management
- Programmed optimal motion paths for shoulder joint rehabilitation

Design Lead, Four-Bar Electromechanical Robotic Gripper

Feb 2025 - May 2025

- Designed and manufactured a miniature four-bar linkage gripper, with 64%+ mechanical efficiency
- Designed gripper geometry using kinematic synthesis and GD&T in SolidWorks, ensuring precise movement and fit of components
- Created MATLAB scripts to analyze position, velocity, acceleration, and stresses in the system under various loads

Team Manager & Electronics Lead, Force-Sensitive Electromechanical Robotic Gripper

Sep 2024 - Dec 2024

- Designed and manufactured a robotic gripper with programmable grasp force for the manipulation of fragile or soft objects
- Programmed closed-loop control on a Raspberry Pi Pico using MicroPython, using FSR and encoder data to regulate motor force and motion
- Built circuit schematics using KiCad, ensuring correct power and signal routing across all components