Camilo Garrido

Mechanical Engineering Junior

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Miami, FL, 33145 | Pasadena, CA, 91125

Education

California Institute of Technology, Pasadena, CA | *BS in **Mechanical Engineering*** | GPA: **4.1** | Exp: **June 2026**

- **Courses Taken:** Multidisciplinary Systems Engineering, Mechanics, Thermal Sciences, CNC Machining, Mechanical Prototyping, Design and Fabrication, Robotics, Single Board Computers, Computational Science and Engineering, Computer Programming, Linear Algebra, Multivariable Calculus, Differential Equations
- **Current Courses:** Thermal Science, Mechanics, Multidisciplinary Systems Engineering,
- **Extracurricular Activities:** Caltech Air and Outer Space Club, Questbridge Club, Griller

Maritime Academy of Science and Technology, Miami, FL | GPA: **3.94** (on a 4.0 scale) | Graduated 2022

- **Key Highlights:** 11 AP Classes, 3 AICE classes, Robotics Club President and Treasurer, Science National Honor Society Vice President, Technology Student Association Treasurer, National Honor Society

Work & Research Experience

Trane Technologies, La Crosse, WI - Thermal Systems Summer Intern
June 2024 - Present

- Data uncertainty project: improve predictive accuracy of shell-and-tube heat exchanger performance Python model across various configurations.
- Conduct wind tunnel performance tests on evaporator and heat exchanger coils

California Institute of Technology, Pasadena, CA - Teaching Assistant
September 2023 - March 2024

- Mechanical Prototyping — Introduced students to tolerancing and machining parts (machines used: lathe, mill, waterjet, laser cutter, bandsaws, sandblaster, drill press, 3D printer, etc.)
- Single Board Computers — Introduced students to standard prototyping components and skills, including servos, DC motors, various sensors, soldering, electrical wiring, and programming microcontrollers

California Institute of Technology, Pasadena, CA - FSRI Peer Mentor
July - September 2023

- Offered guidance and support to incoming first-year Caltech students from disadvantaged backgrounds during Caltech's 2023 First-Year Success Research Institute (FSRI) summer program.

California Institute of Technology, Pasadena, CA - Caltech Big Idea 2023
December 2022 - March 2023

- Researched and designed a solar concentrator for regolith-based metal production on the moon.
- Justified design choices in a research proposal for the NASA Big Idea Challenge and an AIAA paper.

Linesider Boats, Miami, FL - Mold-Making Assistant
April - June 2022

- Worked on a wet layup composite mold for an 18 ft skiff, using fiberglass and polyester resin.
- Calculated the catalyst-resin ratios, accounting for the shop's temperature to avoid thermal runaway.

Bolado Composites LLC, Miami, FL - Infusion Assistant
January - August 2020

- Used vacuum-resin infusion to create carbon-fiber/epoxy composite car splitter kits.
- Assisted with developing production molds through wet layup using fiberglass and epoxy.

Skills

Technical Skills: Python, Machining (including CNC), Arduino, SOLIDWORKS, Fusion360, Onshape, MATLAB, HTML and CSS, 3D Printing, GD&T, Vacuum-resin infusion

Languages: English and Spanish (fluent - Florida Seal of Biliteracy)

Awards & Recognitions

- AIAA 2023 Regional Student Conference 3rd place Team Winners (Region IV)
- Questbridge National College Match Recipient (2021-2022)