

## Jose Mariano Barrios

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### Education

**San Francisco State University**  
**B.S., Mechanical Engineering**

Aug. 2022 – Present  
GPA: 3.58

### Skills

**Software:** MATLAB, Solidworks, Simulink, C++, AutoCAD, Python, Microsoft Office, PSpice

**Languages:** English, Spanish (fluent), Portuguese, French (intermediate)

**Relevant Courses:** Controls Systems, Intro to Solidworks, Heat Transfer, Electromechanical Systems, Thermodynamics, Mechanics of Fluids, Mechanics of Solids, System Dynamics, Fundamentals of Circuits, Intro to Microcontrollers, Intro to MATLAB

### Work Experience

#### Grader Student Assistant

Sept. 2024 – May 2025

*San Francisco State University*

- Assign grade and give feedback to homework assignments and lab memos for Materials of Engineering and Dynamics course; over 100 students total
- Working with ASME study groups initiative to provide tutoring assistance

#### STEAM Specialist

Nov. 2023 – May 2024

*Miraloma YMCA*

- Managed and developed K-5 children at a local school, 10 to 40 students daily
- Facilitated programming for students to explore STEAM-related activities
- Supported coordination of STEAM-related events and outreach activities

#### Project Group Intern

May 2023 – Aug. 2023

*ACCO Engineered Services*

- Assisted in preliminary design, proposal data, and costs
- Aided in writing letters, change orders, and other documents
- Participated in the estimation and bid process

#### Game Day Student Staff

Sept. 2022 – Apr. 2023

*SFSU Athletics Department*

- Worked alongside a team of ~15 students & faculty
- Managed live broadcasts & scoreboard, and took care of necessary equipment for matches

#### Assistant HVAC Technician

Jun. – Aug., 2020 and 2022

*Airstars Corp. (f.k.a. Airtech Solutions)*

- Worked closely with a small team of 5 experienced HVAC technicians
- Trained in diagnosing appliance issues & appliance sales on a day-to-day basis
- Transported machine & parts across the Bay Area to meet installation deadlines

### Academic Extracurriculars

#### Research Lab Assistant

Sept. 2024 – Mar. 2025

*Tensegrity Lab with Dr. Mojtaba Azadi*

- Worked under Dr. Azadi to develop tensegrity structures to beautify the newly-built Science and Engineering Innovation Center building at SFSU
- Employed tensegrity-related doctorate papers to design durable and elegant structures

#### Co-President

May 2024 – Present

*American Society of Mechanical Engineers at SFSU*

- Coordinating efforts to double amount of members and maintain high attendance
- Directing new club initiatives: study sessions, build teams, social events
- Hosted a variety of different workshops and info sessions, tripling event count compared to last year

#### Outreach Officer

May 2024 – Present

*American Society of Civil Engineers at SFSU*

- Outreached to 100+ civil-related companies and organizations for engineering career fair
- Maintain relationships with certain companies to host info sessions/company seminars

#### Student

Sept. 2024 – Present

*Engineering Graphics course with Dr. Mera Horne*

- Took Dr. Mera Horne's Engineering Graphics class, and produced a gearbox model for an electric screwdriver
- Mastered AutoCAD skills taught in the course to execute project

#### Co-Captain

May, 2021 – May 2022

*Gryphon Robotics at Crystal Springs Uplands School*

- Trained new & old members in a variety of technical and design skills (e.g. CNC, Solidworks, etc)
- Led construction of a fully-functioning robot for FRC competitions, coordinated subteams and managed logistics to ensure deadlines were met

**Member:** Tau Beta Pi (May 2025), NSBE (Jan. 2025), SHPE (Jan. 2024), MESA (Jan. 2024), EOP (Aug. 2022)