

Siolé Mayeski

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EDUCATION

Stanford University

Stanford, CA

Bachelor of Science in Mechanical Engineering, GPA: 3.6/4.0

June 2026

Master of Science in Mechanical Engineering, Autonomy & Controls, GPA: 4.0/4.0

June 2027

Engineering Coterm Fellow (Full Tuition) • GEM Fellow (Competitive graduate fellowship supporting STEM scholars)

Relevant Coursework: Dynamic Systems & Controls, Feedback Control, Dynamics, Thermodynamics, Heat Transfer, Fluids, Solid Mechanics, Product Realization, Programming Abstractions, Statistics for Engineering, Computer Imaging

SKILLS

- **Technical:** Simulink, MATLAB, Python, C++, Git, Linux, Control Systems, CAD (Onshape/Fusion 360), 3D Printer, Laser Cutter, Machining, Woodworking, Welding, Rapid Prototyping, Arduino, FEA, Skyciv, Blender
- **Additional Skills:** Google Workspace, Microsoft Office, Spanish (Proficient)

WORK & RESEARCH EXPERIENCE

Zoos

Foster City, CA

System Integration Intern

June 2026 - Present

- Developing MATLAB software and data analysis tools to validate autonomous vehicle suspension and perception systems, collaborating across hardware, autonomy, and systems engineering teams.

Blue Origin

Kent, WA

Autonomy Control Engineering Intern

June 2025 - September 2025

- Designed Simulink models and algorithms, implemented in New Glenn's second mission, to automate pre-launch criteria validation, preventing false activation of final launch procedures, and reducing launch-sequence delays.
- Wrote comprehensive unit tests in MATLAB to confirm the functionality of Simulink models and ensure compliance with DO-278A standards as a part of the V&V process.
- Developed MATLAB scripts to solve multi-objective optimization problems to improve pre-launch criteria check time efficiency, thus reducing premature launch aborts.

Laboratory of Fluids in Complex Environments (Fx Lab)

Stanford, CA

Research Assistant

September 2024 - December 2025

- Leading thermal cycling tests on silicon carbide porous media burners, using high temperature reflector lamps to analyze and characterize their failure modes and conditions.
- Developed scripts in Python to model heat transfer in silicon carbide during testing conditions.
- Designed and constructed a testing apparatus in CAD software in order to safely conduct thermal cycling.

Notre Dame Turbomachinery Laboratory (NDTL) Propulsion & Power

South Bend, IN

Mechanical Engineering Intern

June 2024 - August 2024

- Spearheaded design, construction, and leak testing of a pilot fuel injection system for a dual-mode ramjet engine, ensuring operational integrity and efficiency.
- Developed Python tools to automate engineering calculations and instrumentation selection for turbomachinery, applying advanced thermodynamics, fluid dynamics, and numerical methods, while analyzing thermodynamic fuel properties to support propulsion system testing and design decisions for a multidisciplinary team.

PROJECTS

Passive Acoustic Gramophone Speaker Design

Stanford, CA

September 2025 - December 2025

- Designed, fabricated, and assembled a passive gramophone-style speaker that acoustically amplifies smartphone audio, leading the complete product development cycle from concept sketches and CAD modeling through material selection, manufacturing, and final integration.
- Applied laser cutting, sheet metal bending, welding, machining (lathe, tapping), woodworking, grinding, polishing, painting, and wood finishing to manufacture precision components, evaluating materials based on structural and acoustic performance to optimize sound transmission.

Stanford Space Initiative, Satellites Team

Stanford, CA

Co-lead of Structures Team

October 2022 - June 2024

- Led the mechanical design, manufacturing, and assembly of a 1000cm³ CubeSat, "Sapling Giganteum", which was successfully launched into orbit in April 2023.
- Spearheaded the design solar radiation test apparatus and 400 × 600 mm ground testbed in Fusion 360 to evaluate energy storage and satellite performance, coordinating across avionics, software, and systems teams.