

Joseph Felderhoff

Contact Information:

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[LinkedIn](#)

Education

Florida Polytechnic University | August 2021-Present | Expected Graduation in May 2025

Bachelor of Science in Mechanical Engineering

- Cumulative GPA: 3.42
- Applicable Coursework: Mechatronics, Mechanical Laboratory Design 1 & 2, Flight Performance Mechanics, Design and Analysis of Machine Components, Fluid Mechanics, Principles of Electrical Engineering.
- Acquired skills/certifications: SOLIDWORKS Certified Associate (Nov 2022), MATLAB, MS office, rapid prototyping/3D printing,

Experience

PAPER | March 2022-Present

K – 12 STEM tutor (Level 2)

- Tutors K-12 students across North America through a live multimedia messaging platform, in subjects ranging from basic arithmetic and geometry to calculus, physics, and chemistry.
- Provides problem-solving support to colleagues over Slack for engineering related student assignments.
- Impacts ≈ 60 students per week.
- Consistently meets or exceeds tracked metrics.
- Leapfrogged STEM tutor level 1 and was promoted to STEM tutor level 2 shortly after probation ended when the level system was introduced.

Student Affairs at Florida Polytechnic University | Fall 2023

Fall Freshman Orientation Leader

- Lead informational presentations and Q&A sessions for the fall 2023 new student orientation.
- Supports new undergrad students throughout the semester through regular communication and interactions.

Projects

Laboratory Venturi meter | Mechanical Laboratory Design | Fall 2023 – Present

- Collaborating with a group to develop a digital venturi meter-based airspeed sensor for use in a shared laboratory wind tunnel.
- Spearheaded digital barometer selection through a robust error estimation MATLAB script.
- Leading the design process, material & manufacturing process selection.

Catapult | Skills and Design 2 | Spring 2023

- Collaborated with a team of 4 to make a simple catapult from additively manufactured parts and recyclable materials.
- Individually designed and printed the throwing arm optimized for simple work-energy calculations.
- Received a perfect accuracy score for this project, hitting both range targets on the first attempt.

Leadership / Volunteer

Florida Polytechnic University | Summer 2022 - Present

Presidential Ambassador

- Provides professional hospitality and campus tours to a variety of professionals, including US senate staff, corporate partners of the university, the FPU board of trustees, and FPU faculty candidates.
- Represents the Florida Polytechnic University student body in professional settings, including Emerge Americas and Synapse Florida.
- Learns and practices professional soft skills such as public speaking, presenting, and networking.

Scouts BSA Troop 323 | Spring 2021

Eagle Scout

- Project: planned and lead the painting of a local food pantry, including fundraising, prep, volunteer paint crews, and cleanup.

Florida Polytechnic University | Spring 2024 - Present

Student Representative in the office of public policy events

- Provides a student perspective to OPPE meetings on topics including event selection, guest speakers, and points of student interest.
- Assists with effectively advertising OPPE events in student spaces, both in person and online.