

Jocelyn Pern

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EDUCATION

Worcester Polytechnic Institute (WPI), Worcester MA
Mechanical Engineering, 3.94/4.0 GPA

May 2026

TECHNICAL SKILLS

SolidWorks (CSWA), MATLAB, JavaScript, Python, Microsoft Office, MongoDB, Siemens NX, Discord.js, VEX

EXPERIENCE

Design Engineer Intern, Watts Water Technologies

May 2025 - Present

- Utilizing SolidWorks and EPDM to improve the company's searchable database and support various business activities.
- Exposure to quality, production, physical distribution/warehouse, health, safety, and the environment.

LEAP Intern, NASA Lucy Mission L'SPACE Mission Concept Academy

Jan 2025 - Present

- Providing mentorship to 300+ students in the NASA Lucy Mission L'SPACE Mission Concept Academy for critical aspects of mission formulation, with a specific focus on risk identification, mitigation, and management.
- Ensuring successful completion of the academy for students through their development of a mission concept from the Mission Concept Review to the Preliminary Design Review in the NASA Project Mission Lifecycle.

Project Manager, NASA L'SPACE Proposal Writing and Evaluation Experience

Sep 2024 - Dec 2024

- Managed an interdisciplinary team of 10 students and organized the team's operations and procedures by undertaking several administrative tasks, such as; scheduling weekly meetings, leading task distribution and progress checks, and managing the team's document organization.
- Developed a novel solution to address a NASA pain point after researching existing state of the art technology.
- Co-authored a technical proposal in response to a request from NASA Marshall Space Flight Center.

Project Manager, NASA L'SPACE Mission Concept Academy - The Orion Alliance

May 2024 - Sep 2024

- Lead an interdisciplinary team of 13 students through the development of a 200+ page Preliminary Design Review of a selected space mission presented by the NASA L'SPACE Program.
- Managed a team management system; scheduling team meetings, distributing tasks via Gantt charts and sign up sheets with 3 subteam leaders representing Science, Engineering, and Programmatic.
- Learned from NASA professionals and earned 7 skill mastery badges for the following topics: Teaming, Requirements, Project Management, Systems Topics, Risk Management, Heat Transfer, and Siemens NX.

STEAM Instructor, The Robo Hub

May 2024 - Aug 2024

- Delivered captivating and interactive STEAM learning experiences to ~100 students.
- Increased organization's community presence in Greater Boston through ~10 outreach events at local schools, town events, in-house, and tech companies such as Google and Boston Dynamics.
- Designed mechanical housing for a marketing project involving the development of a talking robotic head powered by ChatGPT that was showcased to 100+ members of the community.

FIRST Intern, Boston Tech Initiative

Jun 2022 - Jun 2023

- Planned and promoted invitational event alongside the Boston Tech Initiative team and 16 other interns, aimed at the Greater Massachusetts FIRST Tech Challenge community to provide a platform for collaboration.

Head Coach and Mentor, Andover Youth Services

Sept 2018 - Dec 2021

- Mentored and coached ~60 middle school students through the process of constructing a robot to compete in the FIRST Lego League competition.
- Empowered middle schoolers with the fundamentals of robot design, programming, project planning, and core values through a multitude of hands-on experiences.
- Collaborated with the robotics club to promote STEM to youth in the community, attracting 500+ students, families, STEM clubs, and STEM organizations to a community-wide event.

PROJECTS

Low Altitude Economy Service Cloud Platform for UAM in China, RobSense

Aug 2024 - Dec 2024

- Worked in a group of 15 students from Worcester Polytechnic Institute and Hangzhou Dianzi University in an International Joint Practice project in Hangzhou, China, sponsored by RobSense Technology and Education.
- Developed a high level conceptual design and business plan for a low altitude service cloud platform.

Fruit Harvesting Robot

Aug 2024 - Oct 2024

- Designed, built, and programmed a VEX robot to autonomously harvest, transport, and sort fruit objects using computer vision, PID control, and sensors.