

SARA PEDRAJA

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EDUCATION

Cornell University, Ithaca, NY

Bachelor of Science: Mechanical Engineering

May 2027

GPA: 3.3/4.00

Relevant Coursework: Fluids, Mechanics of Materials, Dynamics, Mechanical Design, Statics of Solids, Thermodynamics, Electromagnetism, Differential Equations, Intro to Python, Intro to Mechanical Engineering, Calculus 3

Miami Dade College, Hialeah, FL

Associates of Arts: Mechanical Engineering

May 2023

GPA: 4.00/4.00

WORK EXPERIENCE

Kessler Scholars, Ithaca, NY

Mentor

July 2024-Present

- Help Cornell freshmen acclimate to their first year of college by providing lifestyle tips, study help, mental health resources and more.
- Help organize events to create community among the scholars such as ice cream socials and karaoke events.
- Organize one-on-ones with scholars to provide personalized support for any issues regarding their freshman experience.

ControlsTech, Hialeah, FL

August 2023-Present

Assistant

- Assistant mechanic (Assembling, troubleshooting, maintenance of machines like CNCs, Conveyors, etc) for on-site jobs during the summer and school breaks.
- Virtual assistant for paperwork and consultant for future projects.
- Help keep track of budget to build new machines and develop our own CNC machine in the future.

Thrive Scholars, Miami, FL

June 2025-July 2025

Project Management Fellow

- Be accountable for the main office. Conduct paperwork and organize check ins such that scholars and visitors are always accounted for, as well as mail.
- Plan and host events to create community between the attendees such as tours around campus, visits to cafes and game nights.
- Serve as a mentor to the program assistant and answer any question they might have about life as a college student.

LEADERSHIP & PROFESSIONAL DEVELOPMENT

Cornell Autonomous Motions

May 2025 - Present

Full Team Lead; Founder

- Lead a brand new team with the goal of developing Human-Computer Interactions through multiple projects such as an autonomous dog..
- Manage the mechanical team by leading designs for the body of the dog in CAD, as well as provide guidance with machining the parts of the dog such as the actuator and the legs of the dog..
- Organize fundraisers and events, including a conference to go to at the end of the year and recruiting.

Autonomous Bicycle Project Team

February 2024- May 2025

Mechanical Subteam, Subteam Lead

- Designed a battery holder and sensor holder for the bike through the use of Fusion360.
- Ran the tests necessary to make sure the bike works and nothing falls out of the bike while also maintaining balance and speed.
- Changed the wheels of the bike and made any repairs to it necessary after testing.

Robotic Hand Project

August 2017-June 2023

Self-project

- Led a team for 6 years in researching prosthetics and how to make a robotic hand simulate real movement.
- Designed a hand from scratch in Fusion360 and simulated movement through the use of strings.
- Tested the hand with challenges regarding picking up paper and stacking cups filled with water.

SKILLS & INTERESTS

Technical: Soldering, wiring, 3D modeling (Fusion360), drilling, Powerpoint, assembling, Python, Arduino, Excel, Word, machining (mill, lathe)