

Henry Tenecela

Ithaca, New York

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Masters of Engineering student in Mechanical Engineering with a strong interest in consumer product design and automation seeking a full time position starting Summer of 2023.

Education

Cornell University

M.ENG. MECHANICAL ENGINEERING | GPA: **4.06**

Ithaca, NY

August 2022 - May 2023

B.S. CIVIL ENGINEERING, MINOR IN MECHANICAL ENGINEERING | GPA: **3.5**

August 2020 - December 2022

Relevant Courses Physical Prod Entrep, Innov Prod Design, Interaction Design Studio, Digital Microcontrollers, Mech Synthesis

Monroe Community College

A.S. ENGINEERING SCIENCE | GPA: **3.78**

Rochester, NY

August 2018 - May 2020

Skills

Technical

Fusion 360, SolidWorks, AutoCAD, SketchUp, ANSYS, Arduino, C/C++, Python, Java, HTML/CSS, LabView, MATLAB

Professional

English (fluent), Spanish (fluent), Communication, Leadership, Lesson Management, Time Management, Mentoring

Work Experience

Mechanical Engineering Intern

Durham, NC

WOLFSPEED

May 2022 - August 2022

- Reduced lab testing by 80 percent by designing a Graphical User Interface using **Java** to optimize Ampacity and Thermal Resistance in MOSFETs.
- Redesigned packages for MOSFETs in **SolidWorks** and conducted a thermal simulation in **ANSYS**.
- Directed dimensional analysis for quality assurance on MOSFETs to compare to those conducted by a third party vendor.

Undergraduate Researcher

Ithaca, NY

BEWLEY APPLIED TURBULENCE LAB - SIBLEY SCHOOL OF MAE - CORNELL UNIVERSITY

August 2020 - May 2022

- Constructed an experimental setup in a wind tunnel to analyze turbulent flow and observe how it affects battery consumption on drones.
- Manufactured hot-wires by soldering thin wires between probes to later observe voltage variations caused by turbulence.
- Redesigned existing **Arduino** program to analyze collected wind speed and voltage data from the wind tunnel for future drone applications.
- Analyzed results by applying a Fast Fourier Transform algorithm programmed in **MATLAB** to visualize vortex shedding frequencies.

Manufacturing and Design Engineer Intern

Rochester, NY

STEINER TECHNOLOGIES

May 2021 - August 2021

- Designed and machined tools utilizing **SolidWorks** improving customer's cycle time per project by 60 percent.
- Led completion of 10+ aluminum tool parts operating CNC Mills with rotary 4th axis and B-axis.
- Scheduled and delivered job travelers to the manufacturing floor to maximize efficiency and ensure on time delivery to customers.

CAD Student Aide, Engineering and Technology Center

Rochester, NY

MONROE COMMUNITY COLLEGE

February 2020 - June 2020

- Assisted 20+ students by troubleshooting design issues when completing assignments in **SolidWorks**.
- Provided assistance in English and Spanish depending on student's needs.
- Managed the computer lab by ensuring all electronic devices were safely handled and shut down when not in use.

Engineering Projects

Unmanned Air Vehicle Project Manager

Rochester, NY

MONROE COMMUNITY COLLEGE

January 2020 - May 2020

- Managed a team of four undergraduate students by determining and distributing technical roles, and scheduling weekly meetings.
- Manufactured and wired an Unmanned Air Vehicle (UAV) capable of carrying an Unmanned Ground Vehicle (UGV) through an obstacle course.
- Utilized existing **Arduino** program for the UGV to trigger light sensors, which would allow detaching itself from the UAV and follow a marked path.
- Used **Betaflight** and **Cleanflight** for PID tuning and to command the drone.

Autonomous Vehicle Team Project

Ithaca, NY

MONROE COMMUNITY COLLEGE

September 2018 - December 2018

- Constructed an autonomous vehicle capable of navigating around an oval track and pulling 1200g of weight without slipping.
- Designed chassis, axles, brackets, wheel mounts, and steering arms for an autonomous car in **SolidWorks**.
- Manufactured all components in a machine shop using aluminum material and CNC machinery.
- Assembled all components and added servo motors, gears, and line sensors to the vehicle.