

JEREMY MANIAGO

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EDUCATION

The City College of New York

B.E. Mechanical Engineering, Physics Minor

Expected Graduation: May 2024

Cumulative GPA: 3.77

Relevant Coursework: Fluid Mechanics, Heat Transfer, Mechanics of Materials, Computer Aided Drafting/Design, Numerical Methods, Materials Science, Statics/Dynamics, Mechatronics, Engineering Design, Calculus 3, Differential Equations

Affiliations: American Institute of Aeronautics and Astronautics (AIAA), Society of Automotive Engineers (SAE)

QUALIFICATIONS

Software: Solidworks, MATLAB, Excel, Microsoft Office

Programming: Arduino(C), Python, HTML, CSS

Hands-on: Arduino, assembly of robots and structures, material testing, mechatronics sensors

Soft Skills: Problem Solver, Collaborative, Analytical, Creative, Reliable, Patient, Open-minded

PROJECTS

AIAA RC Plane, City College | Junior Co-designer

Aug 2022 - Present

- Designed landing gears for a Design Build Fly (DBF) RC plane by conceptualizing and sketching initial designs
- Collaborated with a team to identify areas of improvement, incorporating their feedback to refine the final product
- Utilized computational fluid dynamics (CFD) to evaluate multiple landing gear options and determine the design with the least induced drag
- Conducted basic finite-element analysis (FEA) on the strut to assess the impact resistance of Kevlar and Innegra fibers, and selected the appropriate material to withstand and absorb energy on impact

Baja SAE car, City College

Aug 2021 - Present

- Developed and designed driveshaft guards for an off-road Baja vehicle, ensuring durability in rugged terrain.
- Assisted in researching suppliers for items and tools needed to fully assemble the Baja vehicle
- Participated in the manufacturing process of additional vehicle components, working collaboratively with a team to ensure timely and accurate production

Reverse Engineering of Portable Fan, City College

Jan 2021 - May 2021

- Coordinated and collaborated with a team to sketch and re-design a hand-sized portable fan
- Demonstrated 2-D sketching skills and scaled dimensioning
- Utilized Solidworks software to create 3-D models of the fan based on various 2-D sketches
- Examined the fan's internal assembly via deconstruction and identified areas of improvement

RELEVANT EXPERIENCE

Research Assistant, Grove School of Engineering, NY

Dec 2022 – Jan 2023

- Conducted in-depth research on supercooled droplet testing, analyzing engineering research publications to gain a comprehensive understanding of the field.
- Conceptualized and designed a cooling chamber with variable temperature control below 0 degrees Celsius to prevent supercooled droplets from crystallizing during testing.
- Utilized MATLAB and heat transfer equations to aid in the selection of an appropriate chamber height, then created a simple model in Solidworks to visualize and refine the design.
- Incorporated design ideas from published setups to create a simpler, cost-effective cooling chamber and researched suppliers that can provide cheap alternatives

Tech Flex Leader, America On Tech, Inc.

Sep 2019 - May 2020

- Selected in NYC to participate in a year-long web development fellowship program
- Participated in weekly technology classes taught by software engineers at leading technology companies
- Received 160 hours of coding training using HTML, CSS, JavaScript, Repl.it, and Bootstrap
- Attended professional development training sessions and career days hosted at leading tech and media organizations
- Designed multiple websites and templates
- Developed communication and presentation skills

AWARDS & ACHIEVEMENTS

- Dean's List, The City College of New York
- Member of Arista Honors Society, Midwood High School

Jan 2021 – Dec 2021

May 2019 - Jun 2020