

EDUCATION

Georgia Institute of Technology

Candidate for a Bachelor's Degree in Mechanical Engineering

Honors: A. James Clark Scholar: One of ten students chosen for their strong academic and leadership potential

Current GPA: 4.0

August 2019 - May 2023 (Expected)

EXPERIENCE

R.N.C Industries

May 2021 – July 2021

Mechanical Engineering Intern

- Designed and fabricated a CNC bandsaw intended to automate the cutting of large quantities of insulation, reducing labor by 50%
- Successfully repaired an existing bag making machine with a custom-designed plastic tensioner, yielding a 200% increase in per-person output
- Satisfied all machine functionality requirements strictly using open-source electronics (Arduino and Raspberry Pi)
- Produced all designed components in the company machine shop, using a mill, lathe, MIG welder, multi-cutter saw, etc.
- Developed a user-friendly machine interface through the use of Python and C++

EFC Trim

November 2017-December 2020

Construction Worker

- Measured and installed base, crown molding, casing, and shoe mold
- Installed electronic locks, deadbolts, crash bars, and other door-related hardware
- Read and interpreted floor plans to complete punch lists and general construction
- Operated power tools including circular saws, miter saws, hammer drills, routers, etc.

Meadowcreek High School Student Based Enterprise

August 2017 - May 2019

Lead Project Manager

- Repaired and performed maintenance on commercial 3D printers (FDM)
 - Took inventory and ordered material
 - Repaired and troubleshoot laser engraver software issues
 - Designed and fabricated requested projects from faculty using AutoCAD and Inventor
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PROJECTS/CLUBS

Creative Decisions and Design Competition Robot

August 2020 – December 2020

Manufacturing Lead

- Awarded 2nd place out of 40+ competing teams in the main competition
- Worked with a team of 4 to design, fabricate, and test a robot intended to complete tasks autonomously within a given equipment restraint, as well as a budget of 100\$
- Authored and presented technical reports analyzing design alternatives/selections, potential improvements, as well as documenting overall progress

Pi Tau Sigma - Mechanical Engineering Honor Society

January 2021 – Present

Philanthropy Co-Chair

- Coordinated and managed multi-club philanthropy events with local organizations to encourage students to give back to the community
- Offered membership for being amongst the top 25% of students in the school of Mechanical Engineering

Wreck Racing

January 2021 – Present

Suspension Team

- Fabricated custom suspension and chassis components using a waterjet, plasma cutter, and other metalworking machinery
 - Learned and applied the basics of MIG and TIG welding through books, videos, and other self-teaching methods
 - Reinforced the factory Chevrolet S-10 box frame with a MIG welded steel crossbeam prior to heavy modification
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SKILLS

Mechanical Engineering Concepts:

Rigid Body Dynamics, Creative Decisions and Design, Circuits and Electronics, Numerical Methods, Thermodynamics, Deformable Bodies, Engineering Graphics, Principles/Applications of Engineering Materials, Fluid Mechanics, and System Dynamics

Software:

SolidWorks, MATLAB, Python, C++, Inkscape, AutoCAD (Certified), Inventor, Trotec JobControl, Cura, Arduino, Microsoft Office

Instrumentation:

Oscilloscope, Function Generator, Bode Analyzer

Machinery:

3D printing, CO₂ Laser, mill, lathe, waterjet, welder (MIG and TIG), plasma cutter, soldering, general hand and power tools

Language:

English(native), Spanish(fluent)