

Evan Ortiz

Atlanta, GA 30084 | 404.858.2859 | eortiz@gatech.edu | [linkedin.com/in/evan-ortiz-ab9186127/](https://www.linkedin.com/in/evan-ortiz-ab9186127/)

EDUCATION

Georgia Institute of Technology Atlanta, Georgia
Bachelor of Science – Mechanical Engineering December 2021
Involvement: Solar Jackets, Prototype Instructor, Robojackets, ASME, Delta Airlines Scholar, Best Inter. Capstone Project

Clayton State University Morrow, Georgia
Associate of Science – Pre-Engineering (Honors) May 2019
Involvement: Cross Country (MVP 2018), Track & Field, HOPE Scholar, Eagle Scout

SKILLS

Mechanical: 3D Printer (FDM, SLA), Laser Cutter, Water Jet, Lathe, Power/Hand Tools, Router Mill, Iron Solder, Nuclear Gauge, Forklift Operation, Circuit Building, NI MyDAQ

Technical: MATLAB, SolidWorks, Siemens NX, nTopology, Autodesk: Inventor/Fusion 360, Python, Arduino, Microsoft Office, Maplesoft, Inkscape, HTML, Labview, DREAM 3D, Oscilloscope, DMM, Waveform Generator

Languages: Spanish (Intermediate), French (Elementary)

EXPERIENCE

Area-I Marietta, Georgia
Mechanical Engineering Intern May 2021 – August 2021

- Prototyped an extended payload module for the ALTIUS 600 to house a high-power radio – conducted thermal, CG and drop tests in conjunction with hand calculations to confirm a 1.5 safety factor
- Broadened manufacturing skills in composites, utilizing router mill, and obtaining quotes from machine shops
- Integrated with avionics, software, and aero departments to supplement design decisions to meet prototype deadline

Georgia Tech Lorraine Metz, France
Undergraduate Research Assistant August 2020 – December 2020

- Aided the investigation of mechanical stresses on microstructure evolution via molecular dynamics on Cu/Al
- Utilized Python in randomizing and logging grain structures generated by DREAM 3D
- Executed simulations, interpret/analyze the results, and deliver written reports detailing the results

United States Cold Storage McDonough, Georgia
Engineering Intern June 2020 – August 2020

- Enforced LEAN procedures in warehouse and assisted with hands on maintenance on commercial equipment
- Accurately produced reports and directly work with engineers/clients in developing product standards
- Presented company data in making business decisions with operational processes, quality control and cost minimization

PROJECTS/VOLUNTEER

Passive Exoskeleton for Forefoot Offloading – Design Lead Aug 2021 – Dec 2021

- 3D printed an exoskeleton rocker sole with Formlabs' Flexible 80A to shift forefoot loading to the midfoot for patient affected with pes cavus
- Conducted compression and fatigue testing on the material to determine elastic modulus, Poisson's ratio, and cyclic response up to 100,000 cycles.
- Won best interdisciplinary project at capstone expo with rigorous FEA and lattice optimization analysis

GT Solarjackets Solar Racing Team – Member Jan 2021 – Dec 2021

- Member of the SR-4 Solar Array Design sub-team with goal to map 320 solar cells onto aeroshell CAD models
- Consult MPPT efficiency charts to determine what amount of power will be lost due to zoning configuration

ME 2110 Robotics Design Competition – Design Lead January 2020 – April 2020

- Designed an autonomous robot in Solidworks to adhere to strict competition rules to satisfy customer requirements
- Broke team into subgroups: fabrication, construction and automation to 3D-print/laser cut parts, integrate the parts using fasteners, and code the behavior of the bot's actuators and motors with Arduino.
- Improved 3 iterations of robot placing 3rd in the class and successfully completing 5/6 of the required tasks

GT Robojackets 3lb Battle Bot: Spinni Boi – Member August 2019 – April 2020

- Materials, weapon operation, and design in Autodesk were ordered by the team with toleranced drawings prepared
- Fabrication of ring-spinner bot was completed utilizing the SCC lathes for turning, mills for pockets, and water jets for the base plates. In competition, Spinni Boi advanced to second round at Motorama Robot Conflict 2020