

David Claffey

325046 Georgia Tech Station ATL, GA 30332 / dclaffey@gatech.edu / 614-832-9603

EDUCATION

Georgia Institute of Technology, Atlanta, GA

Summer 2020-May 2025

- Junior
- Candidate for Bachelor of Science in Mechanical Engineering. Minor in CS Intelligent Systems
- GPA: 4.0
- Alpha Sigma Phi Eta Zeta Chapter
- Design Build Fly Club
- Agile Locomotion and Manipulation VIP Research
- DART Labs/ EPICS Lab Undergrad Research

SKILLS

Analysis

FEA, topology studies, URDF Generation

Computer-Aided Design

SOLIDWORKS, Fusion 360, Cura/Slicers, Inventor.

Instrumentation

Welding, Woodworking equipment, metal working equipment, electronics (soldering etc), Oscilloscopes, Waveform Generators, electrical equipment.

Machinery

3D Printer, laser-cutting, CNC, Water Jet, Milling

Programming

Python, MATLAB, C++, Arduino IDE, JAVA.

Research and Project Design

Proposal design, professional writing, project management, administrative collaboration.

Communication

Presentation, leading/organizing meetings, research session leading, schoolboard administration experience

LEADERSHIP

NHS President Spring 2018 - Summer 2020

- Organized and held club biweekly club meetings and weekly officer meetings
- Delegated tasks during think-tank style meetings.
- Public speaking

Design Build Fly Subsystem Team Lead Fall 2020

- Communication with project engineer and delegated tasks.
- Led brainstorming discussions and weekly briefs with the rest of the club.

PROJECTS

Design Build Fly Subsystem Fall 2020

- SOLIDWORKS
- Laser cutting
- Aerodynamics
- Fluid dynamics

LIDAR Locomotion Compliant Robot Spring 2021

- FEA analysis
- Kinematics research
- Back-drivable systems
- QDD Actuation
- Upper Body Design to be integrated with Cassie Biped Robot

- Differential Wrist Design and Shoulder Configuration.

TOSOH Switch Gear Phase Analysis Summer 2021

- Researched and troubleshooted frequent electrical failures through data collection and high voltage phase mapping.

TOSOH Press Die Analysis Summer 2021

- Analyzed operation cases on several high force press die. Exposure to materials such as Ta, Cu, Al, several grades of steel including H13.

TOSOH Rack Design and Drafting for Robotic Application *Summer 2021*

- Redesigned a solvent rack for efficiency and smooth implementation
- Functioned as a draftsman with lead modeling engineer and robotics director.

DART Labs Hip Exoskeleton *Summer 2021*

- Raspberry Pi
 - Machine Learning Algorithms
 - State Estimation
 - Virtual Reality Manipulation
-

EXPERIENCE

Tosoh Mechanical Engineer Intern, *3600 Gantz Rd. Grove City OH 43123*

Summer 2021

- Equipment Project Team Design and Manufacturing
- Machine layout optimization and movement
- Subcontractor management
- High voltage data collection
- Static analysis of 10k ton press dies
- Automation and deflection research
- CAD, Excel, Inventor, IFS, AutoCAD

Grove City Endodontics Software Engineer, *4203 Gantz Rd, Grove City, OH 43123 * 614-277-9455*

Summer 2017-Summer 2021

- Webpage design/maintenance with Wix.com
- Database widget programming using Python and sqlalchemy

Prototyping Instructor, *Flowers Invention Studio, ATL, GA, 30332*

Spring 2021-Current

- Floor Management
- Prototyping design and mentoring