

Coley Chapman

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Georgia Institute of Technology, Atlanta, GA

August 2020 – Anticipated December 2023

- Bachelor of Science in Mechanical Engineering GPA 3.8/4.0
- Relevant Coursework: Computing for Engineers, Statics, Kinematics, Thermodynamics, Deformable Bodies, Fluid Dynamics, Robotics

Experience

Mechanical Engineering Intern, Mendaera, San Mateo, CA

May 2023 - August 2023

- Transitioned complex sheet metal assemblies from ID to functional “looks like” prototypes for user testing
- Interfaced with contract manufacturers to deliver 2 medical cart prototypes within my 3 month internship.
- Performed miniature gearbox testing including DOE, fixture design, data analysis, and synthesized findings.
- Designed and fabricated quick turn-around fixtures for encoder calibration and testing.

Instruments and Accessories Intern, Johnson & Johnson RAD, San Jose, CA

May 2022 - August 2022

- Drove improvements to a new robotic laparoscopic camera housing from ideation to prototype
- Utilized rapid manufacturing and in-house machine shop to generate prototypes used for usability studies
- Designed injection molded fixtures and validated lifespan using FEA.
- Interfaced with manufacturers to build testing fixtures for evaluating performance and wear characteristics of production sample camera housings.
- Developed an understanding of medical robotics principles and the OTTAVA system

Mechanical Engineering Intern, Formlabs, Durham, NC

May 2021 - August 2021

- Drove development of in house prototypes to test usability and performance of multiple new products
- Designed testing fixtures and delivered performance analysis on engineering/design validation products
- Delivered thorough writeups and documentation for all work completed
- Owned optimization of 3 product features and delivered parameters to guide development

Mechanical Engineer, Strapt Vending, Atlanta, GA

February 2021 - May 2021

- Drove development of an internet-connected tampon dispenser as the sole mechanical engineer employed
- Delivered prototype units ahead of schedule utilizing high-speed manufacturing technologies
- Worked with US-based contractors to produce over a dozen dispensers that are now in service around Atlanta

Research Assistant, Georgia Tech Manufacturing Institute, Atlanta, GA

Spring 2021 - Present

- Design and perform CNC micro-mill experiments to optimize the surface finish of metal SLS printed parts
- Create detailed records and documentation regarding my findings and present them to my coworkers
- Delivered prototype micro CNC parts for robotics research.

Projects

Desktop Injection Molder, Atlanta, GA

March 2022- October 2022

- Worked in a two person team that designed and prototyped a low cost and easy to use automatic desktop injection molding machine capable of using 3d printed tooling.
- Awarded Georgia Tech Maker Grant for project funding and showcase

Volunteer

Mechanical Design Mentor, OTTO 1746 FRC Robotics Team, Cumming, GA

July 2022 - Present

- Lead 30+ high school students in the development of best practices for the team and created documentation regarding the design, manufacturing, and CAD of world class competitive robots

Prototyping Instructor, Georgia Tech Invention Studio, Atlanta, GA

Fall 2020 - Present

- Instruct students and faculty on proper usage of a wide variety of tools, provide design and fabrication advice for academic, research, and personal projects.

Skills

- **Software:** SOLIDWORKS (CSWP Certification), Onshape, Fusion 360 CAM Generation, Autodesk EAGLE
- **Manufacturing:** 7 years experience in general machine shop knowledge mill and lathe operation, 5 axis CNC Mill, Laser Cutter, Waterjet, and 3D Printing, GD&T and DFM