

Avery Minkin

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EDUCATION

University of Massachusetts Amherst

Amherst, MA

Commonwealth Honors College, College of Engineering

Bachelor of Science in Mechanical Engineering

Candidate, May 2023

Engineering Management Minor

Candidate, May 2023

- GPA **3.77**
- All Semesters: Recipient of Dean's Award and J&A Adams Scholarship

WORK EXPERIENCE

Entegris

Bedford, MA

NPI Intern

May 2022 – August 2022

- Worked with the New Product Introduction team to bridge the gap between R&D and Manufacturing Operations teams
- Assisted in standardizing a manufacturing process by identifying causes of inconsistencies and inefficiencies
- 3D printed fixtures designed in Solidworks, collected and analyzed accelerometer data to draw conclusions about tooling
- Presented findings to managers of NPI, R&D, and Operations teams and learned how to communicate with and balance the needs of multiple departments

Ethnocare

Quebec City, Quebec, Canada

Remote Contract Intern

January 2022

- Designed a proprietary pin locking system for Ethnocare's Airstream prosthetic liner with the objective of optimizing functionality, weight, and manufacturability
- Creative problem solving, research, collaboration, and basic engineering knowledge was utilized to create several sketches of design options, one of which was designed as a functional assembly in Fusion 360

Accurounds

Avon, MA

Quality Control Externship

April 2019 - June 2019

- Worked with the quality control team to create instructional videos on the deburring process (cleaning) of several different parts to improve training efficiency
- Created process sheets with instructional videos on multiple processes for training of future employees
- Collaborated with an engineer to formulate an efficient laser engraving process to increase throughput of labeled parts

PROJECTS

Honors Thesis: Motion Capture in Nursing

September 2022 - Present

- Researching the viability of utilizing various motion capture methods (camera based, IR) to give nurses in training feedback on procedures such as injection and IV administration
- Leveraging motion capture tools such as MediaPipe, Leap Motion, and VIVE Trackers to create a user-friendly system

Senior Capstone: Prosthetic Hand Attachment for Golf

September 2022 - Present

- Team lead of student concept design team developing a prosthetic attachment to function as the trailing hand in a golf swing
- Kinematics and strength of materials are analyzed using mo-cap and FEA tools and compared to theoretical analyses
- Consideration of cost, manufacturability, and marketability place the team in a business-like perspective

Virtual Reality Environment Tool for Retailors

September 2022 – December 2022

- Designed a customizable store in a virtual environment using Unity to serve as a tool for retailers to test different store layouts, marketing strategies, and visualize sales data
- Customized components in Unity and scripts in C# to generate specific interactions, visuals, audio, and object functions

ACTIVITIES & SKILLS

Minutemen Alternative Investment Fund

Amherst, MA

Junior Analyst at a student-run hedge fund

September 2021 – May 2022

- Utilize long/short research strategies to analyze large cap stocks
- Create and deploy comp tables, DCF models, and other technical analysis methods
- Undergo curriculum set forth by senior fund members in addition to holding reviews and 2 equity pitches a semester

Helping Hands Foundation

MA

Volunteer

August 2015-Present

- This nonprofit organization is a resource to those with upper limb differences and holds outings twice annually
- Facilitate sports and arts & crafts activities during outings as well as network the foundation within the limb loss community

Technology: Experience with ANSYS, Fusion 360, GitHub, MATLAB, MS suite, Python, Solidworks, and Unity

Interests: Cooking, drawing/painting, golf, snowboarding, soccer, and weightlifting