

Daniella Rosen

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Education

THE CITY COLLEGE OF NEW YORK

Bachelor of Engineering - Mechanical Engineering

MAY 2020

GPA: 3.06

Relevant Courses

Computer-Aided Design, Mechanical Systems Design, Technical Writing, Material Science, Fluid Mechanics, Heat Transfer, Thermal Systems Analysis and Design, Computer Methods, Manufacturing

Skills & Abilities

- Computer: Microsoft Word, Excel, PowerPoint, Access, MATLAB, SolidWorks, SolidWorks Simulation, FEA/FEM Analysis, HSMWorks, Autodesk Fusion 360, Arduino IDE, ANSYS Fluent, Adobe Illustrator
- Other: Laser Cutting, 3D Printing, CNC Milling, Manual Milling, Lathing, Soldering, Semi-Fluent in Spanish

Projects

Cat House

February 2020 - Present

- Lead team of three to conceptualize a design of a shelter for an outdoor cat during the winter months
- Made a CAD model and selected materials per the client's specifications

Untethered Hydraulic Elbow Exoskeleton

October 2019 - Present

- Lead team of seven students to conceptualize a design for a wearable structure to encompass a hydraulic "muscle" that would move the users arm and aid with muscle fatigue or muscle failure
- Constructed prototype of the wearable structure and programmed an Arduino to control the electrical components of the apparatus

Manufacturing a Desktop Injection Molder

October 2019 - December 2019

- Worked alongside a team of three students to develop a technical design and selected appropriate materials based on research of how injection molders function
- Created model in SolidWorks, generated G-code using HSMWorks and Manufactured parts using machinery such as the manual mill, CNC mill, lathe and drill press

Mobile Whiteboard

June 2019 - August 2019

- Worked with a team to design and construct a whiteboard that was easily maneuverable and contained storage for office supplies
- Used laser cutter to design functional and aesthetic shelving made from wood

Finite Element Analysis and Design Optimization of a Prybar

March 2019 - May 2019

- Performed experiment to deform a prybar in order to find the loading needed for deformation
- Implemented finite element analysis (FEA) on a CAD model of the crowbar to analyze points of failure and ran convergence tests to determine the maximum stress values
- Point of failure on the design was found at the teardrop shaped hole used for prying nails which was optimized through the use of fillets

Experience

Advanced Manufacturing Senior Apprentice | The Zahn Innovation Center

May 2019 - Present

- Fabricated prototypes using numerous manufacturing methods for both clients and in-house projects
- Worked with assistant engineer to teach workshops to hone manufacturing and prototyping skills of new apprentices
- Lead group of apprentices in completing several projects
- Performed maintenance on equipment and machinery in the workspace

Gaming Console Repair

November 2017 - Present

- Met with clients to determine the issue with the console and type of repair needed
- Perform body repairs such as repairing malfunctioning joysticks
- Give a written invoice of parts needed and estimate of cost to client

Affiliations

Treasurer | Access Futures Club

May 2019 - Present

- Oversaw the club budget and maintained accurate financial records
- Organized workshops with executive board members to educate students about different disabilities
- Organized events with executive board members to present new technology for assisting people with disabilities in partnership with Microsoft and Google