

Jacob A. Pomerantz

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EDUCATION

Northwestern University, Evanston, Illinois; GPA: **3.5**

Bachelor of Science in **Mechanical Engineering**, *Manufacturing Concentration*, *Segal Design Certificate*

Relevant Coursework: Differential Equations, Thermodynamics, Mechanics of Materials, Programming in Python

RELEVANT EXPERIENCE

Northwestern Formula Society of Automotive Engineers: Powertrain Sub-team 10/22 - Present

- Active member (8-10 hours per week) of team responsible for maximizing power output of electric car for competition, while optimizing cost and weight.
- Team lead designing accumulator container and mounts for NFR 24. Apply CAD, FEA, and CAM software to design, test, and manufacture battery container and mounts.
- Manufacturing responsibilities include operation of waterjet and other CNCs to produce an array of car components, and assisting chief engineer with welding car chassis.

Ford Engineering Design Center: Shop Trainer 09/23 - Present

- Employed by Northwestern University in the Ford Design and Manufacturing Shop ~ 8 hours per week to train and assist undergraduate and graduate students in use of mills, lathes, bandsaws, laser cutters, CNCs and other machines.
- Work with other students involves applications for research, class, and other personal projects.
- Complete modules on manufacturing methods and applications to broaden personal skills.

Research Assistant: McCormick School of Engineering 09/23 - Present

- Collaborate with Professors Kornel Ehmann and Ping Guo to manufacture automated implant device for delivery of HIV medication.
 - Manufacture and assemble machine with 4 integrated processes: cutting TPU plastic to deliver medication, implanting HIV tablets, sealing ends of implant, and removing formed medication from machine.
 - Work has required extensive redesign of prior prototype, identification and ordering of appropriate parts, manufacturing of new and old components, and testing of new design's operational function.
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LEADERSHIP AND WORK EXPERIENCE

Hilton Garden Inn, Breakfast Cook Summer of 2022

- Prepared continental breakfast and made-to-order grill items 6 days per week, from 4:30 AM - 12:30 PM.
- Responsible for opening and closing kitchen and grill before and after all other employees arrived or left
- Never missed a shift.

Biltong Brothers LLC 2020 - 2021

- Owned and operated a Colorado-licensed business to prepare and sell biltong, a South African dried meat.
- Through website, social media marketing, and in-person selling, generated over \$4,000 in revenue and reinvested it to buy equipment and expand support team.
- Managed finances, designed company logo, and manufactured machine to marinate and cure meat.

BBYO Rocky Mountain Regional President 2021

- Elected by 400+ young men across 3 states to serve as regional president of an organization devoted to creating meaningful experiences for teens.
 - In charge of region spanning 3 states (Colorado, Wyoming, New Mexico) and 14 chapters.
 - Worked with board to plan events, fundraise, and recruit and preserve members during COVID-19.9
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SKILLS

Computer: Proficient in SolidWorks, Python, MatLab, HTML 5, CSS 3, FeatureCAM, Excel, and Powerpoint

Language: Hebrew (conversational)

ADDITIONAL PROJECTS

X-ray Positioning Device: Designed and manufactured imaging prototype for use with immobile patients

Electric Skateboard: Designed electric vehicle; built battery in 12s3p configuration; installed ESC, BMS, and motors