

GEOFFREY JAMES MILLS

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Mechanical engineering student looking for an opportunity to contribute and grow as an intern. Excellent communication skills with strong focus on organization. Peerless academic achievement resulting in a 4.0 cumulative GPA. Experience working with fellow engineers on multiple projects, demonstrating leadership, time management and ingenuity.

Education

University at Buffalo, The State University of New York

Mechanical Engineering, B.S. Expected 5/25

August 2021 — May 2025

- **GPA:** 4.00

Coursework: Statics, Thermodynamics, Mechanics of Solids, Dynamics, Applied Math, Dynamic Systems, Fluid Mechanics

Projects

Thermodynamic Power Cycle Project

November 2022 – December 2022

- Designed a Carnot steam power cycle while communicating and collaborating with an engineering peer.
- Achieved a 35.67% efficiency cycle while being limited on pumps, turbines, temperature, pressure, and capacity.
- Coordinated with a project partner to ensure timely meetings of deadlines resulting in completion of project milestones and goals.

OEMP Pool Lift Model Project

August 2022 – December 2022

- Engineered a pool lift machine capable of lifting and lowering a 500 lb. person safely.
- Corresponded with several engineering peers providing input on all aspects of design.
- Evaluated several material, length, and shape choices through pen & paper and MATLAB analysis to keep pool lift within budgetary limits.

Mechanical Pencil Sharpener Reverse Engineering Project

August 2022 – December 2022

- Executed project while working and communicating with a team of 4 engineering peers.
- Assessed conceptual and detailed design of sharpener including energy transfer, mass transfer, manufacturing processes, stresses, and material analysis.
- Investigated several creative solutions to innovate sharpener's design.

Tuning Fork Vibration Analysis

July 2022 — August 2022

- Developed precise MATLAB program analyzing 12 vibrational modes, 3 material costs, 2 cross-sectional areas, and various lengths of a tuning fork.
- Conducted detailed cost modelling of tuning forks based on several design specification inputs.
- Demonstrated inventive mathematical and coding techniques while plotting 12 vibrational modes.

Skills

- **Hard Skills:** Excel (Data Analysis, Plots, Tables etc.), PowerPoint, Word, MATLAB, Solidworks
- **Soft Skills:** Communication, multitasking, time management, teamwork, organization
- **Languages:** English (Native), French (Intermediate), German (Intermediate)

Awards

Dean's List

August 2021 — Present

New York State Comptroller Award

2021