

Madeleine Taft

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY

Expected May 2023

Bachelor of Science, Computer Science

GPA: 4.0

Robinson Secondary School, Fairfax, VA

June 2019

IB Diploma, GPA: 4.563

Relevant Coursework: Object Oriented Programming and Data Structures, Multivariable Calculus, Linear Algebra, Differential Equations, Physics: Mechanics, Electricity and Magnetism

Skills: Python, Java, HTML/CSS, Autodesk Inventor, Microsoft Word/Excel/Powerpoint, German

TECHNICAL EXPERIENCE

ChemE Car, Cornell University, *Battery Omega Subteam*

Oct. 2019-Present

- Collaborate on a team of 4 to develop a functioning battery from its base chemicals
- Research and develop several cell chemistries, including Al-air and Zinc-alkaline
- Improve the voltage and current of the battery in order to power a small car
- Interact with other subteams to integrate the battery with the other components of the car

Rocketry Club, Robinson Secondary School, *Founder, Co-captain, Treasurer*

Oct. 2016-May 2019

- Designed and simulated model rockets on OpenRocket that reached altitudes up to 800ft
- Fabricated rockets via laser cutting, 3D printing and component assembly
- Led a new club to compete in The American Rocketry Challenge for 3 years

Virginia Aerospace Science and Technology Scholars, Virginia Space Grant Consortium

Nov. 2017-July 2018

- Wrote case studies and technical reports that dissected past NASA missions and explored future missions.
- Researched and designed power systems for a simulated mission to Mars
- Presented a comprehensive Mars mission proposal on a panel to an audience of NASA employees

PROFESSIONAL EXPERIENCE

Engineering Peer Advising, Cornell University, *Peer Advisor*

Sept. 2020 - Present

- Lead a class about opportunities at Cornell, including presentations, panels, and other activities
- Offer advice and mentorship to incoming freshman
- Assist a faculty advisor in planning and organizing events and activities for the class

Noodles and Company, Fairfax, VA, *Team Member*

Feb. – July 2019

- Interacted with customers to ensure exceptional service
- Balanced multiple responsibilities such as operating cash registers, preparing and delivering meals, and regularly maintaining the cleanliness of the dining area

OTHER ORGANIZATIONS/PROJECTS

Alpha Omega Epsilon, a professional and social engineering sorority

Feb. 2020 - Present

- Active member of Diversity & Inclusion, Logistics, and Collaboration committees
- Develop and improve professional skills, specifically for women in engineering
- Participate and in philanthropy and fundraising events

College Face Masks, personal project, *co-founder and logistics*

May – Aug. 2020

- Founded and marketed a small face mask business aimed at college students
- Designed and sold over \$240 worth of hand-made face masks
- Donated 100% of profits to the NAACP Legal Defense and Educational Fund

Cornell Piano Society, piano instructor

Sept. 2019 – March 2020

- Instruct beginner level piano to several students during the semester
- Help students advance to the next level of piano performance