Maya Watts

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Education

Cornell University College of Engineering

Bachelor of Science in Mechanical Engineering | Expected May 2027 | GPA: 3.2

Relevant Courses

MAE 3240 Heat Transfer, MAE 3230 Fluid Mechanics, MAE 3260 System Dynamics, MAE 3780 Mechatronics, MAE 3270 Mechanics of Engineering Materials, MAE 2030 Dynamics, MAE 2250 Mechanical Synthesis, ENGRD 2020 Statics and Mechanics of Solids ENGRD 2110 Thermodynamics
CS 1110 Python Design & Development, CS 2110 Java Object-Oriented Programming

Arlington High School – Lagrangeville, NY

GPA: 106.3/100 (4.25) | Principal's List | Honor Key Student

Job Experience

ITT Goulds Pumps R&D Mechanical Engineering Intern **May - August 2025**

- Designed and optimized CAD models and STEP files to improve design accuracy and streamline manufacturing processes.
- Analyzed centrifugal pump assembly operations to identify opportunities to reduce assembly complexity and to improve mechanical integration.
- Collaborated with engineers across design and testing teams to accelerate project timelines and align solutions with customer needs and industry requirements
- Produced clear technical documentation by translating complex engineering concepts into clear deliverables.

Cornell CS More Research Fellowship **Summer 2024**

- Selected to participate in Cornell's intensive and selective summer program at Cornell University's College of Engineering, designed to promote professional development and pioneering research.
- Delved into key computer science subjects, tackling complex computational challenges including Discrete Structures, Computer System Organization, Functional Programming, and Data Structures.
- Collaborated with leading professors and faculty at Cornell University in a rigorous academic setting, developing advanced problem-solving and analytical skills through team projects and research initiatives.
- Learned how to utilize computing research to support local communities and solve global problems.

Technical Skills

- Prototyping: 3D printing, CAD modelling
- Software Tools: SolidWorks, Autodesk Fusion, Creo, MATLAB
- Programming: Java, Python, HTML, CSS, C++

Project Experience

Collective Embodied Intelligence Lab **August 2024 – Present**

- Worked in a team of three to develop double tailed saw robots capable of autonomous digging, climbing, subtracting material, leveling, and reshaping dry granular terrain.
- Developed robot behaviors enabling multi-robot autonomous cooperation in unstructured environments.
- Served as the primary mechanical engineering researcher, leading CAD model development and 3D printing prototyping.

Recipient of Spring 2025 Engineering Learning Initiatives Undergraduate Research Award

- Selected for funding to support research on autonomous robotic terrain modification in Professor Petersen's lab.
- Presented research in October 2025 at the Engineering Learning Initiatives showcase.

Website Developer Intern Maribel Pregnall **June 2021 – May 2023**

- Created a website to bring awareness to the endangered Blanding's turtles in wetlands behind Arlington High School, in Lagrangeville, NY. The website demonstrates ways to help protect them and enables connections across the country with other Blanding's turtle sites.
- Enhanced website user experience by implementing responsive design and improving site navigation.
- Optimized website performance with efficient coding practices, meeting with an IBM software developer for assurance.
- Developed visually appealing web pages using HTML, CSS, and JavaScript for increased user engagement.

Extracurricular Activities

NACME Scholar **March 2025 - Present**

- Awarded the NACME Scholarship for academic achievement and potential in engineering.
- Recognized as part of a national program that advances diversity, equity, and inclusion in STEM fields.
- Selected among competitive applicants committed to promoting representation and leadership in engineering.

Cornell National Society of Black Engineers **August 2023 – Present**

- Work on increasing the number of Black engineers in the work force by creating an inclusive and empowering environment.
- Produce outreach efforts to get more people of color involved in the program.

Founded Girls Who Code Club **August 2021 – June 2023**

- Arlington High School Club to inform women about the opportunities in computer science.
- Recruited 15+ female students to participate in the club promoting women in computer science.
- Collaborated on game and website coding projects, utilizing Java and C++.