

## EDUCATION

### Bachelor of Science, Mechanical Engineering

University of Delaware, Newark, DE (May 2024, GPA 3.20, In-Major GPA 3.23)

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## MACHINE DESIGN PROJECT

**University of Delaware - Machine Design Course Fall 2022 - Term project (Pill Bottle Filling and Assembly Machine)**

**Project Scope** - To design, manufacture, and test a compact, automated monoblock pill bottle fill system for small batch manufacturers, including conveyance, pill filling, and capping operations.

- Pill Filling Team Captain
- Conceptualized a functioning pill-to-bottle system while dispatching 30 pills each time. Developed spiral guide rail mechanism to complete project goal.

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## PROFESSIONAL EXPERIENCE

**UNIVERSITY OF DELAWARE, NEWARK, DE 2022 – Present** *Fabrication Laboratory Employee - 3D Printing Specialist*

The University of Delaware owns and operates the Mechanical Engineering Design Studio, which houses the Fabrication Laboratory. A manufacturing lab for 3D Printers, Laser Cutters, Vacuum Former, and a Water Jet.

**Demonstrated Expert Level Maintenance and Usage:**

- Operated complex machinery and produced successful products.
- Successfully repaired 5 3D Printer models.

**Proven Leadership:**

- Streamlined guidelines to improve future employees' efficiency.
- Advised colleagues on 3D Printer maintenance and future usage.

**Technology Management:**

- Maintained and efficiently used three Stratasys F170s, five MakerBot Replicators, a Formech 508DT, and a WAZER water jet.

**UNIVERSITY OF DELAWARE, NEWARK, DE 2023 – Present** *Lead Control Systems Teaching Assistant*

Guided students in understanding control theory and application. Developed hands-on lab exercises. Provided support in MATLAB and Simulink. Enhanced practical and theoretical knowledge.

**Demonstrated Advanced Technical Proficiency:**

- Expertly applied control theory in lab settings, enhancing student comprehension and practical skills.
- Led workshops on MATLAB/Simulink, improving students' analytical and problem-solving abilities.

**Proven Teaching Excellence:**

- Developed innovative lab exercises, significantly boosting student engagement and learning outcomes.
- Provided tailored assistance and mentorship, contributing to improved academic performance in control systems.

**Effective Communication and Leadership:**

- Simplified complex concepts, making them accessible to a diverse student body.
- Collaborated with faculty to refine course materials, ensuring a more effective learning experience.

**WAWA, INC., MEDIA, PA 2023 - 2023** *Wawa Facilities - Equipment Intern*

Managed HVAC/R issues across store locations during peak summer demand and provided technical support for proactive equipment replacement projects and costing analysis across diverse platforms and geographies.

**Demonstrated Expert Level Maintenance and Usage:**

- Conducted data analysis of HVAC/R equipment vendors, optimizing maintenance strategies and minimizing operational costs.
- Collaborated with the Facilities team to implement preventive maintenance schedules, resulting in increased equipment reliability and reduced downtime.

**Proven Leadership:**

- Led communication efforts with internal partners to address equipment issues and efficiently managed warranty resolution.

**Technology Management:**

- Leveraged technical expertise to support equipment replacement projects and utilized technology tools for streamlined data organization and data-driven decision-making.

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## TECHNICAL SKILLS

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| <ul style="list-style-type: none"><li>● Laboratory Experience</li><li>● 3D Printing Expertise</li></ul> | <ul style="list-style-type: none"><li>● Data Modeling</li><li>● Desire for Learning</li></ul> | <ul style="list-style-type: none"><li>● Solidworks</li><li>● Matlab/Python</li></ul> |
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