

Drew R. Geiser

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EDUCATION

University of Wisconsin – Madison

Madison, WI

Degree: Bachelor of Science, Biological Systems Engineering

Expected - *May 2026*

Areas of Interest: Aerospace, Innovative Solutions, Design, R&D, Manufacturing, Systems & Processes

GPA: 3.15/4.0

Relevant Coursework: Linear Algebra and Differential Equations, Statics, Physics, Mechanics of Materials, Thermodynamics, Fluid Dynamics, Polymer Processing, Data Science Programming I, Chemistry I & II

Technical Skills: SolidWorks, CAD, 3-D Printing, Microsoft Office Suite, Python, Shop Tools, Fabrication Techniques

PROFESSIONAL EXPERIENCE

Tolerance Masters

Minneapolis, MN

Engineering Intern

June – August 2025

- Designed custom tools, fixtures, and organizational solutions in SolidWorks to improve machine workflows
- Produced CAD models from aerospace blueprints and drawings to support manufacturing and shop operations
- Prototyped and fabricated custom-designed parts using 3D printing, including collet trays, custom storage solutions, and deburring components, improving day-to-day efficiency and keeping the shop organized
- Performed inspections and measurements on thousands of aerospace parts, ensuring tight tolerances were met
- Developed Excel sheets to track work orders and first-article documentation, streamlining quality workflows

Anex-Wang Lab

Madison, WI

Research Assistant

May – November 2024

- Performed filtration, strength testing, and particle size analysis to evaluate carbon-negative concrete performance
- Conducted chemical experiments by preparing precise stoichiometric ratios, neutralizing high pH solutions, and monitoring reactions to ensure safety, accuracy, and reproducibility in concrete development
- Fabricated metal and plastic molds for mortar testing, using bandsaws, drill presses, and sanders
- Trained and supervised interns on lab safety, techniques, and equipment use, promoting consistency and safety

ENGINEERING DESIGN PROJECTS

Automated FarmBot Lighting System

- Worked with a senior design team to create an automated lighting system that adjusts height with FarmBot use
- Fabricated mechanical components using shop tools and 3D printing to support prototyping and testing
- Led the CAD modeling and assembly work, including designing components for fabrication and 3D printing
- Evaluated mechanical and electrical risks and implemented design changes to improve reliability and safety
- Delivered the final design through technical documentation, prototype demonstrations, and a poster presentation.

Larval Mosquito Detection Device

- Collaborated with a team to design and build a mosquito larvae detection device that met client specifications
- Developed and trained an AI-based image recognition model to distinguish larvae from debris and other artifacts
- Designed various CAD models and detailed drawings using SolidWorks that accurately portrayed the product
- Produced formal engineering deliverables that communicated design intent, fabrication steps, and testing methods

LEADERSHIP AND INVOLVEMENT

Tau Kappa Epsilon

Madison, WI

Vice President

November 2023 - 2024

- Coordinated an out-of-town formal event for 250 people, managing a \$70,000 budget while overseeing transportation and hotel accommodations to ensure a cost-effective and enjoyable experience
- Oversaw and directed 12 small council positions and committees within the chapter including academic, philanthropy, and athletics, working closely with each to ensure their successful execution