

# KALEB MARTINY

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## EDUCATION

Illinois Institute of Technology, Chicago, IL May 2026

**B.S. Aerospace Engineering**, GPA: 3.78

- Dean's List 2024-2025
- Active Member, Illinois Institute of Technology Rocketry Club (SEDS Chapter)

Wheaton College, Wheaton, IL May 2025

**B.S. Liberal Arts Engineering**, GPA: 3.34

- Dean's List 2022-2023, 2023-2024
- Participating in the Wheaton-Illinois Tech 3-2 dual degree program

## RELEVANT ENGINEERING EXPERIENCE

**Senior Design Project — Crop-Duster Aircraft Concept (Team Lead)** August 2025-December 2025

- Led a multi-person team through conceptual and preliminary design of an agricultural aircraft, defining mission profiles and performance requirements
- Directed aerodynamic analysis, weight and sizing trade studies, and MATLAB/Simulink flight-dynamics modeling; oversaw and assisted control-law design and validation against stability and performance constraints

**Engineering Project Management Intern**

Wheaton College, Wheaton, Illinois May 2025 - August 2025

- Rehired for a second term based on performance; coordinated multidisciplinary engineering projects with a focus on mechanical and thermal system integration
- Applied thermodynamics and systems engineering principles to HVAC system design, improving system efficiency and equipment reliability
- Conducted design verification, compliance reviews, and quality assurance to ensure adherence to engineering standards and technical specifications on projects totaling over \$100K
- Managed daily progress documentation (photos/reports) on a \$10M facilities project, supporting accountability and coordination across engineering and construction teams
- Developed cost estimates for energy optimization initiatives, applying project management and engineering economics skills
- Facilitated cross-functional collaboration across mechanical, electrical, and facilities engineering teams, mirroring systems integration practices used in aerospace projects

**Research Assistant**

Particle Turbulence Apparatus Design | Illinois Institute of Technology, Chicago, Illinois August 2024 - March 2025

- Designed structural and flow components of a custom turbulence test apparatus using SolidWorks
- Developed experimental hardware enabling high-speed particle flow imaging and CFD validation
- Applied aerodynamics and fluid dynamics principles to guide design decisions for structural layout

## ADDITIONAL EXPERIENCE

**Teaching Assistant**

Statics, Dynamics, Mechanics of Materials | Wheaton College, Wheaton, Illinois August 2024 – May 2025

- Evaluated and graded computational assignments, reinforcing core statics, dynamics, and mechanics of materials concepts
- Addressed course related questions during office hours, enhancing students' problem-solving skills and comprehension of course material

**Engineering Design & Lab Assistant**

Wheaton College, Wheaton, Illinois August 2023 - May 2024

- Instructed students on safe and effective operation of machine shop equipment, emphasizing engineering safety standards, risk mitigation, and reliability practices
- Supported student engineering design projects, focusing on manufacturability and prototyping
- Influenced engineering faculty selection and expansion of Wheaton's engineering maker space

## SKILLS

- CAD & Modeling: SolidWorks, Fusion360, AutoCAD, Shapr3D
- Programming & Analysis: MATLAB, XFLR5, Excel
- Fabrication & Testing: Additive Manufacturing (Ultimaker, Bambu Lab), Material Testing (MTS)
- Engineering Methods: Systems Integration, Design Verification, Experimental Setup, Documentation