

# Maxton Herst

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## Education

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- University of Michigan - College of Engineering** Sep 2020 - Present
- B.S.E. Aerospace Engineering, Minor in Physics 3.3 GPA May 2025
  - M.S.E. Space Systems Engineering *Expected May 2026*
- Reykjavik University, Iceland - Study Abroad: Renewable Energy** Jun - Aug 2023

## Professional Experience

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- Engineering Intern, Parker Hannifin** May - Aug 2025
- Designed, built, and tested software for automated transfer of material databases to FEA tools.
  - Operationalized and validated new FEA techniques to improve analyst workflow.
  - Derived, validated, and implemented a fluid flow simulation for inlet line pressure and velocity.
- Transit Coach Operator, University of Michigan** May 2023 - January 2025
- Safely operated transit vehicles in high-traffic environments, demonstrating reliability and attention to detail.
- R&D Intern, DuPont Building Solutions** Apr - Nov 2022
- Developed and validated a novel small-scale racking strength test, now a competitive advantage for R&D.
  - Led phase 3 development of a new product, coordinating teams to prepare for plant trials.
  - Improved extreme environment fastener corrosion tests; managed 3D printer repair and uptime.
- Founder, CollegeFundTents** Founded Nov 2016 - Sold Nov 2021
- Founded and scaled an event tent rental business during high school; later sold for profit.
  - Made all final logistical, economical, and general business decisions that resulted in net growth.
  - Interacted with customers daily and consistently improved my customer service skills.
- Michigan State University St. Andrew's Internship** Jun - Aug 2020
- Utilized advanced data processing techniques to identify anomalies in NEOWISE data.
  - Collaborated with other researchers, conveying complex technical ideas effectively.
- Crew Leader, Water's Fruit Farm LLC** Oct 2016 - Aug 2019
- Managed both light and heavy machinery maintenance and repair including engine, transmission, structural, and hydraulic work, utilizing many manufacturing and fabrication techniques.

## Research Experience

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- Oblique Wing Aircraft Control Dynamics, B.S.E Aerospace Research** Jan - May 2023
- Conducted in-depth analysis of control dynamics for oblique wing aircraft, enhancing stability.
  - Used data to design a novel fly-by-wire system for an oblique wing aircraft.
- Asymmetric Carbon Fiber Structures, B.S.E Aerospace Research** Aug - Dec 2022
- Designed, constructed, and analyzed asymmetric carbon fiber booms for deployable solar sails.
  - Designed, constructed, and utilized a cryogenic test chamber for space environment tests.

## Extracurricular Experience

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- Solo Rowing Expedition** April - August 2024
- Navigated 600-miles in Lake Superior on a 31 day, solo rowing journey.
  - Designed, built, and tested the row boat that served as the only form of transportation and housing.
  - Overcame the weather and wilderness through endurance, creativity, resilience, and mental toughness.
- Team Captain, FIRST Robotics Competition** Oct 2016 - Apr 2020
- Led and directed a 30-member robotics team, overseeing design, development, and strategy.
  - Engineered advanced Java control systems for autonomous and teleoperated modes.
  - Managed a \$60k budget, making strategic decisions on resource allocation.

## Additional Competencies

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**Languages:** MATLAB, Python, Java, C++, C, Mathematica  
**Software:** SolidWorks, Interactive Physics, CATIA, ANSYS, JMP, VSCode, Git  
**Fabrication:** rapid prototyping, composite structures, 3D printing, lathe, mill, welding, FoamLinx