# Wyatt Kacmarynski

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# Education

#### Iowa State University

Bachelor of Science in Aerospace Engineering Graduated Cum Laude with 3.56 GPA

# **Projects**

## **UAV Optimization**

- Led the development of a Python-based optimization to minimize a UAV's drag and radar signature
- Reduced drag by 15% through iterative geometry adjustments using an automated loop
- Ensured a feasible UAV design by integrating structural, aerodynamic, and stability constraints

#### UAV Design (Senior Design)

- Led the design and integration of mechanical and control systems for a UAV, securing second place in competition
- Reduced part weight by over 60% by redesigning components using SolidWorks and 3D Printing
- Designed and validated UAV control systems using MATLAB and STAR-CCM+ to create a stable and controllable aircraft
- Fabricated and tested UAV components to verify compliance with design and flight performance requirements

#### Cyclone Rocketry (Club)

- Engineered and constructed a dual-deployment high-power rocket, meeting Level 2 (L2) Certification standards
- Fabricated avionics sleds using SolidWorks and 3D printing, enabling data collection for rocket performance analysis

# Experience

#### **3D Printing and Design Club**

President

- Led a 30+ member club, mentoring in CAD and additive manufacturing, boosting member retention by 30%
- Developed an officer transition system to ensure smooth knowledge transfer and continuity of club operations
- Managed a \$5,000 budget and secured sponsorships for advanced materials and equipment to expand club capabilities

#### Target

Seasonal General Merchandise

- Collaborated with a team to ensure a seamless shopping experience, resolving customer inquiries and issues efficiently

#### **Kacman Aerial LLC**

President and Remote PIC

- Conducted UAV surveys in disaster-stricken areas, improving damage assessment speed by over 50%
- Managed UAV fleet operation and maintenance, ensuring FAA Part 107 compliance and a 100% mission success rate

#### **Barr Bike and Fitness**

Bike Mechanic and Sales

- Diagnosed and repaired bicycle systems, reducing repair turnaround time by 30% through efficient troubleshooting
- Advised customers on bike selection, maintenance, and repairs, improving satisfaction and repeat business

# Certifications

- Private Pilot License (Single Engine Land)
- FAA Part 107 (Commercial Remote Pilot Certificate)

# Skills

Design SolidWorks, Top-Down Modeling, Fusion 360, KiCad Languages MATLAB, Python, C, C++, Git, Java Manufacturing 3D Printing (FDM, SLA), CNC Machining Test Equipment Oscilloscope, Vector Network Analyzer, Digital Multimeter, Signal Generator Software Linux, MS Office (Excel, Word, PowerPoint)

# Aug 2023 - Dec 2024

### May 2024 - Sept 2024

# July 2018 - Aug 2023

June 2018 – Dec 2022

Aug 2023 – May 2024

Jan 2024 - May 2024

Dec 2024

Nov 2021 - Nov 2024