

# Alen Seferovic

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## Education

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**Purdue University** – B.S. Aeronautical and Astronautical Engineering  
GPA: 3.95/4.00

May 2026

## Skills

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**Practical:** Wind Tunnel Testing, RC Airframe Assembly, Servo Integration, Soldering

**Software:** MATLAB, Siemens NX, Simulink, Aras Innovator, Python, XFLR5, Ansys Workbench/FLUENT

## Experience

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**Teaching Assistant**, Purdue University – West Lafayette, IN

Jan 2025 – Present

- Hosted weekly office hours to provide individualized support on undergraduate aerospace engineering topics, clarifying concepts and guiding problem-solving across courses
- Collaborated with the teaching team to develop exam materials aligned with course objectives
- Responded to student questions on online discussion boards by providing clear and concise explanations of technical concepts

**Sales Associate**, Rally House – Chicago, IL

May 2025 – Aug 2025

- Provided product recommendations and answered customer questions to improve sales and overall satisfaction
- Assisted with inventory counts and organized stock to maintain accurate product availability
- Worked with team members to manage floor operations and uphold product organization

**Intramural Official**, Purdue University – West Lafayette, IN

Aug 2024 – Nov 2024

- Effectively managed games and made quick, accurate decisions under pressure, ensuring fair play and adherence to rules for up to 18 players at a time
- Communicated rules clearly and resolved conflicts between players to maintain a positive and fair environment
- Maintained game records, tracked player behavior, and ensured compliance with league regulations

## Projects

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**Firefighting RC Aircraft**

May 2025 – Aug 2025

- Defined mission requirements to build an aircraft supporting firefighting efforts by carrying equipment for hotspot detection and flame analysis
- Applied Siemens NX to design and iterate an airframe capable of supporting concentrated loads from battery and payload while maintaining flight stability
- Integrated payload and sensor systems (IR camera, TPH sensors) by tailoring structural design for weight distribution and component compatibility

**Rocket Fin Performance Analysis**

Nov 2024 – Dec 2024

- Designed three rocket models with varying fin geometries to assess low-speed aerodynamic performance
- Conducted experimental testing with a team in a subsonic wind tunnel using load cells to collect data
- Collaborated to present experimental results, data analysis, and design implications in a technical report

**Conceptual Aircraft Design**

Jan 2024 – May 2024

- Worked in a multidisciplinary team to design an aircraft, integrating theoretical knowledge of airfoils, thrust and range parameters, and weight fraction calculations into a mission-oriented design
- Utilized MATLAB to perform iterative aircraft sizing and performance analysis to achieve a converged conceptual design
- Presented a comprehensive technical report detailing the design process, performance metrics, and models