Alen Seferovic

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Education

Purdue University – B.S. Aeronautical and Astronautical Engineering May 2026
GPA: 3.95/4.00

Skills

Practical: Wind Tunnel Testing, RC Airframe Assembly, Servo Integration, Soldering
Software: MATLAB, Siemens NX, Simulink, Aras Innovator, Python, XFLR5, Ansys Workbench/FLUENT

Experience

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

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
- Designed the airframe to protect the Raspberry Pi inside the fuselage while externally mounting environmental and IR sensors, ensuring safe operation and reliable data collection

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