George Harrison

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EDUCATION

California Polytechnic State University, San Luis Obispo| College of Engineering **June 2025**
Bachelor of Science in Aerospace Engineering; Concentration in Aeronautics; Minor in Computer Science **Cumulative GPA: 3.2**

SKILLS

Technical Skills: SolidWorks, MATLAB, Python, Arduino, Java, xfoil, XFLR5, OpenVSP, IADS, 3D printing, Soldering, Composites, Lathe/Mill/Weld Operations, Frontend/Backend Web Development, HTML, CSS, React, Typescript, Blender,

PROFESSIONAL EXPERIENCE

Capstone Aerospace – Aircraft Senior Design Project | San Luis Obispo, CA **Sep 2024 - Present**
Configuration & Systems Engineer

- Led the complete CAD development of the A-30 Condor, ensuring precise integration of all subsystems within the aircraft's outer mold line (OML).
- Collaborated cross-functionally with the engineering team to preserve aerodynamic performance and design intent throughout conceptual development.
- Delivered technical presentations at critical design reviews to senior engineers from Lockheed Martin Skunkworks, Northrop Grumman, Scaled Composites, NASA, the U.S. Air Force (Edwards AFB), and General Atomics.
- Designed and deployed Capstone Aerospace's official website to professionally showcase project deliverables and team achievements.

Northrop Grumman Collaboration Project (NGCP) | San Luis Obispo, CA **May 2024 - Present**
Director of Engineering

- Spearheading multidisciplinary teams across Mechanical, Aero, and Software divisions, ensuring project milestones and design deadlines are consistently met.
- Mentoring team leaders and members in coding, design methodologies, performance analysis, and industry standards to elevate project quality and ensure alignment with professional practices.
- Ensuring the project adheres to given requirements and accurately deriving additional requirements to guide detailed design and development, maintaining alignment with overall project objectives.
- Managing cross-functional engineering teams to deliver a high-performance fixed-wing VTOL design that meets the mission objectives outlined in Northrop Grumman's RFP.

Dawn Aerospace | San Luis Obispo, CA **Sep 2024 - Present**
Data Acquisition System Student Lead

- Leading the design and development of a data acquisition system for Dawn Aerospace's payload volume, ensuring compatibility with aircraft interfaces and precise data recording capabilities.
- Reviewing technical documents and engineering drawings to develop a system capable of accurately measuring key performance parameters, such as a 30,000 ft/min climb rate and high accelerations.
- Designing the system structure to withstand up to 16g's while maintaining data integrity during extreme flight conditions.
- Preparing for on-site integration of the system into Dawn's spaceplane in New Zealand, where collected data will be used to reconstruct flight paths and validate performance against Dawn's benchmarks.

JetZero | Long Beach, CA **June 2024 – Sep 2024**
Flight Sciences Intern
(Paid 40 hours a week)

- Owner of the Tanker Mission Profiling capability within JetZero's proprietary performance tool, leading the design and implementation to enable accurate simulations of tanker missions.
- Mastered and enhanced the MATLAB-based tool, providing the ability to calculate fuel offload based on varying orbital distances and loiter times, addressing a critical capability gap.
- Presented tool modifications, findings, and simulation results to executives and team leaders, effectively communicating technical improvements and their impact on mission performance.

Northrop Grumman Collaboration Project (NGCP) | San Luis Obispo, CA **Apr 2023 – May 2024**

Aeronautics Lead for our Fire Response Aircraft & Med-Evac Aircraft

- Led a team of engineers through the Conceptual and Preliminary design of our Fire Response Aircraft (FRA) & Med-Evac Aircraft (MEA).
- Presented and demonstrated work to Northrop Grumman executives, directors, and technical fellows during SRR, CDR, PDR, and Demonstration of the aircraft's capabilities.

Aero Research & Development: Optionally Piloted Aircraft (OPA) | San Luis Obispo, CA **Jan 2024 – June 2024**

Cirrus SR22T OPA: Flight Computer Team

- Designed the code architecture of the flight computer leveraging Object-Oriented Programming principles in Python, ensuring robustness and scalability.
- Established seamless communication with a VectorNav VN-310, an advanced Attitude and Heading Reference System (AHRS), enabling the acquisition of critical flight dynamics, including yaw, pitch, roll rates, and three-dimensional accelerations.

EXTRACURRICULAR LEADERSHIP

New Student & Transition Program | San Luis Obispo, CA **Apr 2022 – Sep 2022 & Apr 2023 – Sep 2023**

Week of Welcome Leader

- Assisted new students with check-in procedures and guided them in locating and settling into their residence halls.
- Led groups of new students around the Cal Poly campus, providing guidance, support, and information to help them navigate the campus and adjust to their new environment.
- Fostered a sense of community among the new students, helping them build relationships and connections with their peers and faculty.
- Provided support and resources to new students and their families throughout the transition process, responding to questions and concerns and connecting them with campus services as needed.
- Coordinated Week of Welcome events and activities logistics, including scheduling, space reservations, and transportation.

Executive Board Position of a Greek Life Organization | San Luis Obispo, CA **Apr 2022 – Apr 2023**

New Member Educator

- Served as a critical member of the executive board of a prominent Greek life organization, overseeing new members' education and training.
- Developed and executed a comprehensive new member education program, incorporating leadership development, community service, and social activities.

Chair Board Position of a Greek Life Organization | San Luis Obispo, CA **Jan 2022 – Apr 2023**

Scholarship Chair

- Established a successful tutoring program that significantly raised the chapter's average quarterly GPA, earning recognition for the highest average GPA among all chapters.
- Coordinated meetings with academically struggling members to develop strategies for academic improvement and success, leading to transitions from academic probation to the Dean's List.

Insitu: A Boeing Company | Bingen, WA **July 2015 – July 2019**

Student Mentor at Insitu Robo-Flight Academy

- Mentored students in the principle of robotics, coding, and unmanned aerial vehicle operations to promote a passion for STEM fields.
- Led instructional sessions for groups of up to 20 students, providing hands-on experience with quadcopters and fixed wing aircraft
- Facilitated team-building activities and promoted student collaboration and communication to foster a positive learning environment.

AWARDS & DISTINCTIONS

Dean's List | California Polytechnic State University, San Luis Obispo **Mar 2024 & June 2024**
Volunteer of the Year / Standard of Excellence Award | Cal Poly FSL **May 2023**
Fraternity New Member of the Year / Standard of Excellence Award | Cal Poly FSL **May 2022**
Mentor Extraordinaire | Insitu Robo-Flight Academy **July 2018**