Hannah Stevens

702.328.7810 – HannahLV08@gmail.com

**Summary of Qualifications**

* Six years of professional experience in the aerospace industry with diverse background across the product lifecycle: early development, certification, manufacturing, in-service support, and retro-fitting retired airframes.
* Passion for efficiency, accuracy, and innovative problem solving proven through self-taught Python skills creating over 20 applications and automations that support teams across multiple organizations and hundreds of engineers.
* Strong interpersonal and communication skills recognized by critical leadership assignments requiring collaboration between engineers, technical experts, executives, pilots, and customers on ambiguous, complex challenges.

**Education**

**Master of Science; Product Development Engineering 2021** – **Present**

*University of Southern California*

**Bachelor of Science; Aeronautical and Astronautical Engineering 2015** – **2019**

*University of Washington*

**GPA:** 3.6/4.0 cumulative

**Minors:** Applied Mathematics, Mathematics, and Mathematical Physics

**Professional Experience**

**The Boeing Company**

*Systems Safety Engineer*; Boeing Corporate; Everett, WA; 2020 – Present

* Delivered data driven recommendations for airplane safety assessments and design practices on commercial operational cases such as inadvertent TOGA activation and balked landings with collaboration from pilots, flight deck engineers, and data scientists.
* Published Boeing’s first augmented Statistical Summary for in-service airplane accidents that included global analytics and aligned with industry standards while creating a new Python-based tool to increase report generation efficiency and accuracy for future years.
* Created Speak Up process definition, metrics, and a weekly alerting system for over 500 Boeing executives across all business units to provide awareness of employee concerns and investigation findings about product safety/quality issues around the company.
* Correlated data that bridged systemic, cultural databases within the company such as retention, experience, and loan rates to production performance with quality and non-conformance volumes.

*Aerodynamics Engineer*; Boeing Commercial Airplanes; Mukilteo, WA; 2019 – 2020

* Generated numerous ice shapes/parts using CFD++, LEWICE3D, Tecplot, and CATIA for wind tunnel and flight testing in support of FAA, EASA, and other regulatory agencies’ certifications.
* Provided aerodynamic analysis on wing trailing edge configurations, tail polars, and downwash using wind tunnel data, CFD, Monte Carlo analysis, and geometric increments.

*Structures Engineer (Intern)*; Boeing Defense Space and Security; Saint Louis, MO; 2018

* Completed finite element model of entire F-15 forward fuselage upper deck in NASTRAN/PATRAN to complete structural analysis on development aircraft.
* Modeled detailed parts of the F-15 forward fuselage marked for retrofit using CAD software (NX) to create model-based definitions and ensure consistency with former 2D engineering drawings.

**Kirsten Wind Tunnel**

*Engineer/Technician*; Seattle, WA; 2017 – 2019

* Redesigned full balance calibration process for 80yr old external balance to achieve data accuracy to within +/- 0.01lb for all six degrees of freedom (6DOF).
* Managed wind tunnel operation, maintenance, data acquisition and reduction (VBA and MATLAB) for 78 wind tunnel tests and over 2,800 hours of wind-on for both large corporations and academic research projects.
* Volunteered as Tunnel Focal and Research Assistant for UW A&A’s Aircraft Icing and Aerodynamics Research Group to match CRM/HL-CRM data collected at various wind tunnels nationwide at KWT using a repurposed external side wall balance.

**University of Washington**

*Fins Lead;* Society for Advanced Rocket Propulsion; Seattle, WA; 2017 – 2019

* Won Best Overall rocket out of 100+ international collegiate teams at ESRA’s IREC competition.
* Improved the design and fabrication of the carbon fiber fins, air frames, and fiberglass nose cone that comprised the structure of SARP’s 15ft student designed hybrid rocket with a target launch altitude of 30,000ft.
* Achieved a stability margin 50% higher than competition requirements and fin strength of 4x the recommended factor of safety with innovative, dual-layup, Nomex honeycomb, carbon fiber sandwich panel fin structure while maintaining allotted mass budget - which the competition later recommended as a standard for all future university teams.

*Research Assistant*; Department of Aeronautics and Astronautics; Seattle, WA; 2017 – 2018

**Technical Skills**

**Programming:** Python, MATLAB, XML, Linux, REST API, JSON, C

**CAD:** Unigraphics NX, SolidWorks, CATIA

**Tools:** Nastran/Patran, CFD++, Tecplot, Mathematica, ANSYS Mechanical, Fluent

**Applications:** Team Foundation Server / TFS / Azure DevOps, JIRA, LaTeX, GitLab, Visual Studio, VS Code, Excel, Word, PowerPoint, OneNote