JOEL ESTRADA

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SUMMARY

Experienced systems engineer with an extensive background in the aerospace industry who has earned a reputation for being detail-oriented, hard-working, and reliable. Performs well in independent and team environments. Professional experience includes system requirements definition, verification testing, qualification testing, failure analysis, project planning, program management, and supplier coordination. Currently working towards earning a Certificate of Completion in Full Stack Web Development from the University of Washington.

TECHNICAL SKILLS

- Visual Studio Code, HTML, CSS, Bootstrap, JavaScript, jQuery, Git, GitHub, APIs, AJAX
- IBM Requirements Management DOORS, Zoom Video Conferencing, Microsoft Office Suite – Word, Excel, PowerPoint, Outlook, Teams

WORK EXPERIENCE

Spectralux Avionics; Redmond, WA **July 2017 – present**

Avionics Systems Engineer

- Created the Qualification Test Procedures used for the environmental certification of the Envoy Data Link (Envoy). The procedures were based on the Radio Technical Commission for Aeronautics (RTCA) DO-160, the RTCA DO-281, and the SAE International Aerospace Standard AS8034 documents. The procedures were used for in-house testing and for testing at outside laboratories. Collaborated with teammates to create the Qualification Test Report based on Qualification Testing results.
- Supported the development of the Envoy System Safety Analysis by: calculating the Mean Time Between Failure (MTBF) using PTC Windchill software, researching the failure mode distribution of each component of the Envoy using Quanterion FMD-2016 software, and helping create the Failure Mode and Effects Analysis (FMEA) of the Envoy using schematic analysis and engineering theory.
- Defined, validated, decomposed, allocated, and tested numerous Envoy system requirements that are managed in the IBM Rational Dynamic Object Oriented Requirements System (DOORS) software tool. Envoy requirements are based on many industry standards including: DO-178C, DO-160G, ARINC 429, ARINC 724, ARINC 739, ARINC 619, ARINC 615A, and ARINC 741.

The Boeing Company; Everett, WA **July 2011 – March 2017**

Electronic and Electrical Systems Design Engineer

- Responsible for the program management of all aspects of the Ground Maneuver Camera System 2 (GMCS2) obsolescence program for the 777 airplanes. Worked with the supplier on program scheduling, risk management, and interfacing with high level management. Provided technical oversight for requirements development and design verification at the component, system, and airplane level. Utilized lab and airplane factory resources to test and verify the system's design meets operational and functional requirements.
- Assisted in the design requirements development of the 737 MAX Flight Deck Entry Video Surveillance System (FDEVSS). Tested and verified the FDEVSS's design meets requirements at the 737 MAX Displays test bench.
- Supported Avionics Displays obsolescence program for the 737 Next Generation and 777 airplanes, applying the Boeing Notification of Change process. Monitored supplier performance to ensure system integration and compliance with requirements. Participated in lab and airplane flight testing to verify the system's design meets operational and functional requirements.

EDUCATION

Bachelor of Science in Electrical Engineering

University of Washington – Seattle Campus

- Majored in Electrical Engineering with a focus on Power Electronics and Electric Devices, Sustainable Electric Energy, and Large-Scale Power Systems

Certificate of Completion in Full Stack Web Development (February 2021)

University of Washington Professional & Continuing Education – Seattle Campus

- Coding Boot Camp