

Jaxton Monterey Willman

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OBJECTIVE: To secure an interdisciplinary role as a System Engineer where I can use my experience in designing advanced systems and collaborating with cross-functional teams to contribute towards the growth and success of the organization.

CLEARANCE: Active Department of Defense **TOP SECRET** clearance.

WORK EXPERIENCE:

MAY 2023 – PRESENT, NORTHROP GRUMMAN, ASSOCIATE PATHWAYS ENGINEER SYSTEMS

- Designed and maintained a netlist and mapping between a 15-slot SOSA-compliant 6U VPX chassis backplane, 21 LRUs, the backplane connectors, D38999s, and the rest of the system.
- Designed the chassis of the combined Master Oscillator (MO) and Master Generator Unit (MGU) and created a Source Control Drawing (SCD) and Interface Control Diagrams (ICDs) for all affected external IO of the NextGen transceiver initiative.
- Created multiple versions of ICDs to support the preliminary design review (PDR) with the Navy.
- Combined the functionality of the Master Oscillator and Master Generator Unit to save space and reduce declassification problems for the NextGen transceiver initiative.
- Devised new solutions that simplified design requirements for other team members and made cabling more efficient and presented them to IPT leads and managers.
- Designed four different 3D printable ESD safe covers to fit all nine different geometries of SEWIP Line Replaceable Modules in Siemens NX.
- Created Walk-Up Work Orders to request quotes from the BWI West Additive Plastic team to print the final designs according to spec, created the Components and Materials Request, and completed the M922 request to purchase the materials.
- Verified the design against defective Line Replaceable Modules to avoid unnecessary ESD damage risk.
- Assisted with manual thermal testing of the G/ATOR antenna VDAs in the PQL at temperatures of -40°C and 60°C .
- Assisted with RF Continuity testing of AN/TPS-80 active electronic scanned array antennas in LSAIF.
- Analyzed spectral leakage (sidelobes) interference with GPS signals to avoid problems during flight test maneuvers.
- Expanded a code base in MATLAB and created plots to summarize and demonstrate the multi-variable test analysis.
- Worked with a team of three mechanical engineers at Smith's Interconnects in Kansas City to identify failure modes of POGO pins for the antenna Power Logic Assemblies (PLAs).
- Successfully identified the issue as a quality failure in spin crimp and worked with the supplier on a Root Cause Corrective Action (RCCA) to find a path forward for a solution to a problem thought solved more than four years ago.
- Participated in a one-on-one meeting with the Navy customer to understand the importance of the AN/SLQ-32(V)7 SEWIP Block 3 system and used the insights gained to inspire my efforts on the program.
- Completed required training, including FOD, ESD, machine, first aid training, and 3D printer training, to access the Tech Underground facility to create rapid prototypes.

EDUCATION:

May 2022 – University of Florida, Gainesville, Florida

Bachelor of Science in Mechanical Engineering with minor in Computer Science and Information Engineering
GPA: 3.44/4.00, Honors: Cum Laude

SKILLS:

Software: Siemens NX, Siemens TeamCenter, Microsoft Visio, SolidWorks (CAD), Microsoft Word, Excel, PowerPoint, Linux, GitHub, NI LabVIEW VI, SIMULIA Abaqus FEA, Simerics-MP+, Granta

Programming: MATLAB, C++, LaTeX, C, Python, Java, Assembly, HTML, CSS, JavaScript, Yacc/Lex

Manufacturing: Lathes, mills, drill presses, tapping, reaming, finishing, band saws, table saws, grinders, brake presses, MIG and TIG welding, spot welding, 3D printing