Alex Hostick

ahostick86@gmail.com | DoD Clearance: Active

Skills

Software: LabVIEW/LabVIEW FPGA, Python, SQL/PostgreSQL, MATLAB, Machine Learning, PyTorch/Tensorflow, Java/Node.js/REST, Docker/YAML, C/C++, Cloud Compute Systems Engineering/Analysis

Hardware: Software Defined Radios, Vector Network Analyzers, Oscilloscopes, Antenna Design, Single Board and Bare Metal Computers, Power Network Analyzers, GPS Wavefront/Simulation

Tools/Other: AutoCAD, Visual Basic, Control Systems, DSP

Professional Summary

Senior RF/Embedded Systems Engineer with 19 years of experience leading SATNAV, Electronic Warfare, and mission-critical DoD projects. Proven record in GPS test satellite systems, hardware/software integration, and cross-functional team leadership. Active clearance (level available upon request) with strong expertise in RF, embedded systems, and navigation technologies.

Professional Experience

SATNAV Lead Engineer, Air Force Research Labs Space Vehicles Directorate

ARES Corporation, Albuquerque, NM 11/2018 – Present

- Supervised engineering team of 5, overseeing tasking, reporting progress, and training junior staff
- Led payload validation and mission broad agency announcement hardware for Navigation Technology Satellite-3, the first GPS test satellite since 1977
- Developed tools/interfaces reducing R&D DUT and SBIR deliverable validation timelines by 50%
- Authored test plans, design documents, and system verification procedures adopted by AFRL Space System Directorate and SATNAV programs
- Created custom SDR-based signal testing strategies for pre-deployment validation
- Generated HIL/SIL testing strategies covering 80% of DoD SATNAV R&D systems for NTS-3 mission, including amplifiers, muxing systems, digital waveform generators, and antennas for space payloads

Electronic Warfare Engineer, Joint Navigation Warfare Center

PreTalen, Albuquerque, NM 02/2017 – 11/2018

- Supported DoD mission for PNT superiority with inter-agency and coalition collaboration.
- Designed modular testbeds enabling rapid reconfiguration of EW payloads for cross-domain experimentation
- Advanced GPS NAVWAR equipment, EA systems, and NAVWAR domain knowledge
- Designed embedded systems for NAVWAR testing, increasing testing capacity by 30%
- Drafted technical reports influencing acquisition decisions for next-generation NAVWAR capabilities

Electrical and Controls Engineer

CEI Enterprises, Inc, Albuquerque, NM 01/2015 – 02/2017

- Designed/programmed PLC-driven control panels, improving efficiency by 20%
- Migrated to SIEMENS devices, reducing control equipment costs by 80%
- Supervised 15 electricians, reducing errors by 25% and improving delivery times

Electrical Systems Integration Engineering

Dell Engineering Services, Peoria, IL 05/2011-01/2015

- Led electrical integration for Caterpillar 785–797 mining trucks
- Developed harness routing and cable designs to optimize manufacturability and reduce assembly time
- Oversaw manufacturing/integration of engine components, cabs, CAN/Profibus, and electric drives
- Reduced schematic creation time for Caterpillar China by 60% via CREO scripting API automation

Education

Master of Science, Computer Engineering, Internet of Things Concentration

University of New Mexico, Albuquerque, NM | 12/2024

Bachelor of Science, Electrical Engineering Technology

Southern Illinois University-Carbondale, Carbondale, IL | 05/2011