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VERNAL DOUGLAS

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Professional Summary

Electronics and Systems Engineer with 10 years of professional experience. Excels at adapting to new technologies in a changing environment. Excellent teamwork, leadership, and communication skills. Looking for opportunities as a systems or electronics engineer involving model-based engineering, technical project management, or system integration. Clearance details can be provided upon further inquiry. OCSMP Model-User certification in progress.

Skills

- Systems Development Life Cycle
- Operation & Maintenance Support
- Sustainment Support
- Military Construction / Facilities
- Telecommunications
- Avionics Integration
- Project Management
- Systems Engineering
- Risk Management

Education

- **Masters** (Systems Engineering) – Pennsylvania State University **2015**
- **Bachelors** (Electrical Engineering) – University of Florida **2009**

Experience

Systems Engineer (Lead Technologist) - Booz Allen Hamilton; McLean, VA **May 2020 to Present**

- Serves as a systems engineer providing Systems Engineering Lifecycle (SELC) support to the Department of Homeland Security's (DHS) Continuous Diagnostic and Mitigation (CDM) cyber defense program.
- Works with Project Managers to provide SELC guidance ensuring compliance with DHS required engineering activities.
- Provides Systems Engineering Master Plan (SEMP) updates enforcing program-level engineering processes.
- Coordinates and facilitates weekly test Working-level Integrated Product Team (WIPT) meetings between DHS and Booz Allen providing a forum where testing issues and activities can be coordinated amongst all stakeholders.
- Provides support in standing up Model Based Systems Engineering (MBSE) capabilities for the CDM team, allowing the program to deliver quality products while maximizing re-use of data and increased engineering rigor.

ACCOMPLISHMENTS: Redefined how the CDM program communicates with the DHS Combined Test Team (CTT) alleviating months contentious relationships between Booz Allen and CTT; spearheaded the coordination, update and release of the CDM SEMP Version 1.4; defined high-level regression test case selection approaches for future use.

Systems Engineer (GS-14) – Department of Homeland Security; Arlington, VA **Sept. 2018 to May 2020**

- Served as the Requirements and Architecture (R&A) lead by reporting status on all efforts within the branch to division leadership and decision authorities.
- Led an MBSE working group within the Customs and Border Protection (CBP) Systems Engineering Division (SED), spearheading the conversion of SED into a MBSE-centric organization.
- Supported ailing programs by developing context diagrams, generating use cases, and providing requirements guidance thereby allowing programs with minimal engineering support to continue to subsequent acquisition phases.
- Served as the Alternatives of Analysis study team lead for a level 3 ($300M) and level 1 ($1B) program by writing the analysis study plan and overseeing its execution. Saved the government $500k by self-authoring study plan.
- Generated Plan of Action & Milestones documents (POAMs) for inclusion into SED's Fiscal Year spend plan capturing the funding needs of the R&A department and the potential impacts if not funded.

ACCOMPLISHMENTS: Generated context and use case diagrams for the Land Ground Detection System, an ailing program with a short suspense; Authored the Alternative Analysis Study Plan for the Office of Trade's (OT) Advanced Trade Analytics Platform which introduces big data analytics to the OT cargo environment; identified and implemented MBSE tools for use by CBP components and their programs.

Electronics Engineer (GS-13) – United States Navy; NS Norfolk, VA **Feb. 2015 to Sept. 2018**

- Represented the Navy Computer Telecommunications Area Master Station Atlantic (NCTAMS LANT) as the primary technical adviser for Military Construction (MILCON) projects supporting the design of $275M of new facilities.
- Coordinated with Architecture & Engineering firms to provide building requirements, and equipment selection for use in office spaces, and operational spaces resulting in properly equipped watchfloors, equipment rooms and offices.
- Provided Navy Facilities Command (NAVFAC) with oversight and direction to provide facilities that meet NCTAMS LANT mission requirements providing facilities that were more resilient to attacks, and mishaps.

- Participated in thorough value engineering exercises to reduce project overruns, and prioritizing mission needs, allowing urgently needed facilities to continue towards construction.
- Worked with equipment technicians to determine Outside Cable Plant requirements, guaranteeing sufficient cable infrastructure at new sites and adequate network connectivity to base-wide communications customers.
- Served as a technical Subject Matter Expert (SME) on Source Selection Boards for various MILCON efforts, assuring stakeholders that the contractor award would result in a technically competent contractor.
- Served as the NCTAMS LANT technical point of contact for Command, Control, Communications, Computers (C4) equipment relocation efforts occurring post-Beneficial Occupancy Date, resulting in designs that relocated over $200M in C4I equipment with minimal impact to operations.
- Reviewed technical documents including: Technical Data Packages, Requirement Analysis Documents, Audio-Visual plans, and Base Electronic Systems Engineering Plans ensuring MILCONs addressed NCTAMS LANT's mission needs.
- Evaluated audit and assessment reports, and generated technical responses to ensure fair budget adjustments were being made, and to recoup those losses if they were not.
- Led and participated in working groups addressing: concerns, requirements, POAMs, and system dependencies for numerous sustainment efforts, allowing work to be completed on schedule, within budget, and in the interest of NCTAMS LANT's mission needs.

ACCOMPLISHMENTS: Brought MILCONs P-913 and P-621 ($114M and $20M) from kick-off to final design and coordinated $165M in equipment relocation for these projects; Created a risk-assessment report identifying the impact if facility funding was not delivered in a timely manner. This report format was adopted by the Naval community to support similar efforts; Created a risk-remediation package on existing facilities outlining the best courses for mitigation.

Systems Engineer (GS-12) – United States Air Force; Robins AFB, GA **Aug. 2010 to Feb. 2015**

- Served as the technical authority for numerous avionics acquisition efforts ensuring seamless integration of new capabilities across the USAF's entire fleet of HH-60G helicopters.
- Served as the HH-60G technical authority for numerous sustainment efforts thereby providing warfighters with continued aircraft availability in the field of operations, including the Middle East.
- Ensured efforts met stringent airworthiness and safety requirements and presented completion of those requirements to a Configuration Control Board allowing projects to proceed to Testing and Evaluation phases.
- Conducted hazard analyses on assigned acquisition efforts then provided mitigation for those that could not be accepted outright. This provided complete transparency to leadership and ensured potentially harmful hazards were accounted for.
- Conducted thorough market research to evaluate available technologies that fulfilled mission capability gaps. The resulting report provided leadership with the requisite information needed to pursue follow-on acquisition efforts.
- Served as a platform SME for the development of new and cutting-edge technology thereby allowing contractors and laboratories to develop products to address unique capability gaps.
- Coordinated new acquisition and sustainment efforts with both Contracting and Small Business Offices to ensure that legal obligations, as defined by the Department of Defense were met thereby mitigating risk of costly protests.
- Evaluated contractor cost proposals for legitimacy of labor hours, material amounts and costs contained within. The resulting technical evaluation reports assured leadership that a fair & reasonable price were being charged for efforts.
- Supported environmental, electromagnetic, and Developmental Testing by providing Military-Standard requirements. Served witness to these tests for verification that sub-components met these requirements.
- Provided SME support to contractors allowing integration new products into the airframe with minimal rework.
- Reviewed depot-level requests augmentation of technical drawings so as to provide the necessary work-arounds (or clarifications) needed to successfully complete equipment installations.
- Aided in the troubleshooting or repair of non-functioning systems that were deemed too complex for general maintenance efforts thereby allowing the warfighter to continue combat search and rescue support.
- Coordinated with software liaisons at the 402nd Software Maintenance Wing to address issues with: software acquisition, software development, and software concerns.

ACCOMPLISHMENTS: Successfully integrated the following systems into the platform within a four (4) year time span: Lightweight Airborne Recovery System version 12 (LARS v12); The Improved Altitude Hover Hold Stabilization (IAHHS) system; The HH-60G Avionics Communication Suite Upgrade (ACSU); The Forward Looking Infrared (FLIR) Enhanced Local Area Processing (ELAP) upgrade; The Air National Guard's Slingload Water Air Transportation System (SWATS).