CANDIDATE NAME

SENIOR SYSTEMS ENGINEER

Highly skilled **Systems Engineer**, **MBA**, **MS in Computer Engineering**, **EVMS Certified**, with over 20 years of experience in **Requirements Engineering, System Architecture, System Design and Development, Systems Integration, and System Verification, Validation**, and **Evaluation** in multiple **Aerospace** domains including **Defense, Flight Control Systems,** and **In-Flight Entertainment.** Areas of expertise include **V&V, Avionics, Test, Environmental Acceptance, RMS, Quality, Electro-Mechanical, Aerospace**, and **Cost Account Management**. Experience supporting industry leaders to include **COMPANY B, CONTRACT COMPANY, COMPANY D, COMPANY F, COMPANY H**, and **COMPANY I**. Systems Engineering experience includes systems and subsystem interfaces' integration and test, system level requirements verification, risk management, Proposal and BOE, system validation, and most positions of the "Systems Engineering V" diagram including requirements allocation and requirements trace. Experienced in all phases of **verification and validation processes** and possesses over 10 years of **DOORS** experience in Systems Engineering (courses in DXL scripting and DOORS database management included). At **Boeing**, served as **Environmental Test Lead** and **EVMS CAM**. In this lead role, was responsible for conducting functional acceptance tests of the SM-3 Kinetic Warhead infrared seeker, guidance unit, and antenna. These tests were operational and performed pre and post environments (**thermal, vibe,** and **shock**). In addition, was responsible for managing, planning, scheduling, coordination and execution of all **integration**, **test** and **validation** activities including managing the operations of the STE. Was instrumental on facilitating a **process improvement** which reduced a stress screening cycle from 30 days to 20 days. Radar experience includes analyzing radar flight test data. Extensive experience operating in **multi-disciplinary, collaborative environments**, working with disparate disciplines including HMI, Structural and Mechanical Engineering, Navigation and Guidance, Thermal Engineering, and Safety. **Extremely familiar with Industry-Government-Military working relationships and dynamics.**

Skills

- Able to perform technical planning, system integration, verification and validation, cost and risk, and supportability and effectiveness analyses for total systems
- Experience conducting analyses at all levels of total system product to include: concept, design, fabrication, test, installation, operation, maintenance and disposal
- Able to ensure the logical and systematic conversion of customer or product requirements into total systems solutions that acknowledge technical, schedule, and cost constraints
- Skilled with functional analysis, timeline analysis, detail trade studies, requirements allocation and interface definition studies to translate customer requirements into hardware and software specifications
- **Technical Skills:** EVMS, Cost Account Management, DOORS, ISO 26262, Reliasoft, JIRA, MIL-STD-1553B, Risk Management, FMEA, Fault Tree Analysis, FMECA, FRACAS, LEAN, ClearQuest, MS Access, MS Excel, Clean Room, QFD, EVMS, ESD, IEEE-1394, IMP, IMS, Ordnance Qualified, Top Secret SSBI CI Polygraph, CNWDI, OPSEC, COMSEC, Jama, Scaled Agile (SAFe), DO-254, ARP4754, DO-178B, DO-160, ARINC 429, SharePoint, Fly by Wire Flight Control Systems, UNIX

Experience

SENIOR SYSTEMS ENGINEER, COMPANY A, 03/2019 – 2/2021

Commercial and Military DC and AC, 3 phase Power switching, relays contactors, customer requirement flow down, DOORS. Created Leach Specifications from Collins Specifications. Developed verification plans based on verification methods. Created Test, Analysis, and Inspection procedures for requirements. Conducted tests on high amperage (600-1000A) relays and contactors.

SENIOR SYSTEMS ENGINEER – RELIABILITY, COMPANY B, 10/2017 – 03/2019

Write DFMEA, Fault Tree Analysis, ESS, HALT plans and procedures for Boeing and Airbus Galley equipment (chillers, trash compactor). Perform associated testing and document results in final reports. Analyze results and report accordingly. Working knowledge of Reliasoft Reliability Software Suite.

SENIOR QUALITY SYSTEMS ENGINEER, COMPANY C, 02/2017-10/2017

Ensure IQ, OQ, PQ, PPQ, DHF, DMR, CMF, Design Transfer, Validation Strategy, Project Classification, Design Input, Design Output, Sampling Methods, Test Method Validation, and Manufacturing Instructions meet QMS, ISO 13485, 21 CFR 820, and FDA regulatory guidelines/requirements. Initiated changes to SOPs to increase accuracy and reduction in ambiguity. Facilitated improvements to process changes that do not affect product (process changes) more efficiently than changes that affect product (design changes). GMP, SAP/PLM/NetWeaver.

CONTRACTOR, 2/2015- 01/2017

CONTRACT: Boeing 777X Modular Control Stand integration. Wrote ATPs against Boeing requirements for Speedbrake and Stabilizer, Flap Control Module, Alternate Flap Control Module, Parking Brake and Alternate, Trim Control Module, Thrust Control Module.

CONTRACT: Analyzed, decomposed, flowed down, and created requirements for infrared detection, laser detection, hostile fire detection and coded laser pointing countermeasures for IR Seeker MANPAD threats to Army, Marines, and Navy helicopters using DOORS and Enterprise Architect. Wrote associated environmental, performance, and functional test procedures at system and subsystem level. Authored test plan for IR sensor test using Textron Baringa IR Test Set.

CONTRACT: Authored test procedures executed in IFE laboratories in SAFe three-week sprints. Performed failure analysis for JIRA items found during. Provided daily technical and systems engineering feedback (peer reviews) to numerous generic and application specific requirement documents and test procedures.

CONTRACT: Performed systems development of the Avionics Cabin Management Systems (CMS), InFlight Entertainment (IFE), and Ku Band Satellite Global Communication Suite (GCS) for Bombardier CSeries aircraft.

SYSTEMS ENGINEER, COMPANY D, 4/2013 – 2/2015

Define requirements and integrate Flight Control Systems actuation and electronics controllers to meet requirements provided by the customer, meet business objectives, and achieve system certification on three FAR25 commercial aircraft families. Negotiate design requirements with the end customer (aircraft manufacturer). Create and manage requirements using DOORS database following Requirements Management processes to validate requirement, in line with SAE ARP4754A. Participate in development of requirements management process at Parker. Develop and implement interface definition process between electronics control units and actuation hardware through an iterative process that captures detailed design features that must be retained as interface requirements. Capture and flow design requirements from the customer, from system safety and reliability analysis, from regulations, and create system level requirements. Decompose and derive systems level and interface requirements to create component level requirements for Electro-hydraulic (PCU), Electro hydrostatic, electromechanical (PTA, Flaps), and high integrity Control Units. Capture and derive RTCA DO-160 Environmental requirements. Decompose system architecture requirement into derived system and component implementation

requirements. Define validation and verification methods for each requirement. Interpret system performance analysis and derive system level requirement and flow down allocation to component requirements document. Create system level timing, tolerance, and error analysis by combining component level design analysis. Review and approval of engineering drawings.

PROJECT MANAGER, COMPANY E, 4/2012 – 4/2013

Portable Aircraft Test Station: Responsible for ALL facets of design, test, customer interface, procurement, inspection, conformal coating, shipping/receiving, redesign due to thermal faults, DMS, and production schedule of personnel, resources, outsourcing (EMI, Conformal coating), and materials. Conducted failure analysis on power board "freezing" OFF at -60F in thermal chamber. Resulted in design change to incorporate low watt strip heaters.

SYSTEMS ENGINEER, COMPANY F, 2/2010 – 4/2012

Satellite Infrared Sensors Systems Test. Performed analysis in support of the Global Hawk (GH) Enhanced Integrated Sensors Suite (EISS) Environmental Stress Screening test plan for the Receiver/Exciter/Controller (REC), Integrated Signal Processor (ISP), Sensor Electronics Unit (SEU), and Synthetic Aperture Radar (SAR) Line Replaceable Units (LRU. Accomplishments include: Produced a GH EISS Special Test Equipment Preventative Maintenance Plan on schedule and under budget, provided Integrated TopSide (INTOP) program sensor LOS communications integration test proposal data, produced a REC Timing and Control Module (TAC) Procurement Specification, produced a REC TAC Supplier Statement of Work, and Produced a peer reviewed EISS Systems Engineering Management Plan (SEMP).

SYSTEMS ENGINEER, COMPANY G, 4/2006 – 2/2010

Managed the verification of BMDS system level requirements traced with element requirements and provided technical recommendations to include or delete 141 System / Element traces. Served as DOORS and System Architect on site focal and mentored three engineers using DOORS. Updated and maintained BMDS System Level Requirements database including designing and implementing process improvements and ensuring compliance with customer formats and standards. Collected and analyzed verification (and verification reporting processes) metrics and subsequently developed remedial action plans to facilitate verification processes reducing processing costs by approximately 15%. Provided feedback on spiral development of capability-based functionality. Served as System Verification Lead and provided feedback to elements regarding element requirements' trace to satisfy systems requirements. Also, provided technical comments and feedback on BMDS systems requirements on verification feasibility. Due to insufficient supplier resources, performed supplier data mining, requirements analysis, requirements trace and verification status updates for those suppliers' requirements traced to parent system level requirements.

SOFTWARE ENGINEER, COMPANY H 2/2005 – 4/2006

Decomposed and allocated customer requirements to the Northrop Grumman cockpit hardware and software solution using DOORS, UML, and SLATE systems engineering tools. Transformed DOORS database of Integrated Navigation, Controls, and Displays (INCDS) requirements into SLATE representation. Decomposed and allocated System Level (E2-D) requirements to component Integrated Navigation Controls and Displays System (INCDS) in three domains: NAV, COM, HMI, and Guidance.

Earlier Experience

SYSTEMS ENGINEER, COMPANY I

Integrated the (Aegis) SM-3 Missile guidance unit and infrared seeker assembly and led KW environmental stress screening (shock, vibe, thermal, and vacuum) and functional testing in a clean room. Authored

numerous space activation, Failure Detection, Isolation Recovery (FDIR), Failure Mode, Effects, and Criticality Analysis (FMECA) and checkout procedures for Space Station Electrical Power System. Performed extensive EPS and EPS subsystem testing including EPS space electronics cycling through solar charging and insolation battery discharging at the Space Station Test Facility Kennedy Space Center and Space Electronics Laboratory at Rocketdyne Canoga Park.

ELECTRONICS ENGINEER, COMPANY J

Produced F-14D Flight Test Scenarios for radar and IR sensors. Analyzed flight test data to evaluate radar and IR sensor performance against ECM.

SYSTEMS ENGINEER COMPANY K

Performed F-14A System Integration of various avionics and weapon subsystems.

Education/Training

Bachelor of Science in Electrical Engineering / University A
Master of Science in Computer Engineering / University B
Master of Business Administration / University C

- [COMPANY] Certified EVMS
- [COMPANY] Training: Current Directions in Systems Architecture; Statistical Design; CERT Clean room; FOD; FRACAS; ESD; LEAN Six Sigma
- [COMPANY] Systems Engineering Leadership Program (SELP) Co-Instructor, Pre-Management Assessment Process (PMAP)
- [COMPANY] Training: Systems Engineering Level I; Radiation Hardening (Radiation Effects on Satellites and Missiles); FAB-T OPSEC; Cryogenic Safety; Liquid O2, H2, N2, and HE; Network Centric Operations; Earned Value Management System (EVMS); Requirements Traceability & Analysis; Functional Analysis & Requirements Decomposition
- Engineer in Training (EIT) Examination passed
- Commercial Pilot's License, Multi-engine and Flight Instructor Certificates, Instrument Rating