

Experienced software and systems engineer who has successfully deployed custom & industry-standard embedded, desktop and networked systems for commercial and DoD customers. Delivered systems operate on airborne, terrestrial, maritime, and space based vehicles and platforms.

Expert in performing all phases of the software and system development life-cycle including: Creating requirements and design specifications. Model-driven software development, code implementation, and unit test. System integration. Requirements-based system verification with structural coverage at the system and module levels. Formal qualification/certification test. Final product packaging, delivery, and site installation. Post-delivery maintenance and customer support. Requirements management and end-to-end traceability. Configuration management. Review & control of change requests and defect reports. Quality assurance. Peer reviews/Fagan inspections, TIMs, PDRs and CDRs.

Management and project planning proficiencies include: Supervising, coordinating, and mentoring engineering staff members. Creating project Software Development Plans (SDPs). Establishing system architectures, baseline designs, and technical direction. Creating & tracking project task and resource scheduling, costs, resource utilization, and metrics (e.g., Earned Value Analysis). Preparing proposals in response to RFPs and SOWs.

**Project Management  
& Documentation:**

- Microsoft Project, Excel, Word, PowerPoint, Visio
- Adobe Acrobat Professional

**Requirements Management:**

- IBM Rational RequisitePro
- Microsoft Excel

**Analysis & Design  
Methodologies:**

- Object-Oriented Analysis and Design (OOA & OOD) [UML, SysML]
- Structured Analysis and Design [Data Flow Diagrams, Structure Charts]

**Languages:**

- Compiled: C++/C, Java, C#, Ada, Fortran
- Scripting: Perl, Tcl/Tk
- Assembly: Motorola, IBM, DEC

**Engineering  
Process**

**Methodologies:**

- Capability Maturity Model Integration for Development (CMMI-DEV)
- Software Considerations in Airborne Systems and Equipment Certification (RTCA/DO-178)
- MIL-STD-498 Data Item Descriptions (DIDs): "Information Processing Standards for Computers" (DI-IPSC) SSS, SSDD, SDP, SRS, SDD, IRS, IDD, STP, STD, STR, and "Configuration Management" (DI-CMAN) ICD
- Continuous Flow Engineering
- Iridium Certified Software Inspection Process Moderator

**Security:**

- Trusted Computing Group Platform Trust Services (TCG PTS)
- Multiple Independent Levels of Security (MILS)
- Security-Enhanced Linux (SELinux)
- Advanced Encryption Standard (AES)

**Communications:**

- IETF TCP, UDP
- ARINC 618, 429, 629
- MIL-STD-1553

**Code Development  
& CASE Tools:**

- IBM Rational Software Architect (RSA), Rose, Rose/RT
- Eclipse
- Unix/GNU toolchain: gcc, gdb, gcov, ar, make, bash, csh
- Wind River Systems Tornado
- Honeywell Ada Development System (HADS)
- Sparx Enterprise Architect
- CUTE
- Concurrent Versions System (CVS)
- IBM Rational ClearCase, ClearQuest
- Atlassian FishEye/Crucible, JIRA, Confluence
- Microsoft Visual Studio
- Oracle/Sun NetBeans
- Green Hills MULTI
- Metrowerks CodeWarrior
- MATLAB Builder JA
- SciTools Understand
- Parasoft Jtest
- Apache Subversion (SVN)
- Perforce

**Operating Systems  
& Hypervisors:**

- Red Hat Enterprise Linux (inc. SELinux)
- Unix (Solaris, Mac OS)
- VMware Workstation, Player
- Microsoft Windows
- DEC VAX/VMS
- Oracle VirtualBox

**RTOSes &  
Embedded  
Processors:**

- Wind River Systems VxWorks
- Integrated Systems pSOS
- Motorola M680x0, M6800
- Gspac PowerPC 750
- Enea OSE
- Honeywell Core (AIMS 777 RTOS)
- Advanced Micro Devices 29050
- BAE Systems RAD750 PowerPC