

RICHARD W. VONROBLE

EXPERIENCE SUMMARY

Rich served eight (8) years in the US Navy Nuclear Power program and qualified Senior Reactor Operator and Staff Instructor at the US Navy Nuclear Power Prototype training facility in Saratoga, NY. Navy service on board USS Carl Vinson as #1 Work Center Supervisor was awarded a Captains letter for innovation and special procedure development for emergency rod testing at sea.

Following military service Rich earned a Computer Engineering degree at the University of Florida specializing in Software Engineering, Software Testing and Secure Encryption Protocols. Since then, his professional capabilities evolved into five (5) major areas:

- Software Engineering – over ten (10) years as a Senior Software Engineer designing and developing products for Instrumentation and Control, Data Acquisition and Reporting, Geographic Information System, Engineering Analysis, and Medical Devices for Cancer Research.
- Quality Management – over seven (7) years leading Software Quality Assurance and Software Verification and Validation teams in large project deliveries. Large Projects include critical (DoD) Department of Defense Logistics War Planning (CFAST) and ARMY Military Intelligence applications for Interrogation and Reporting.
- Project Management – over seven (7) years solid project management experience with PMI and PMBOK programs. Rich performed many assessments for the Bonneville Power Administration, Project Management Office (PMO) to assess program and project health. Rich acted as Mission Assurance Lead performing project and program oversight for DoD Northrup Grumman programs.
- Software Development Life Cycle Standards (Assessment and Appraisal) -Over ten (10) years specific experience appraising and establishing Software Quality Assurance regimes using CMM, CMMI Process Models as well as utilizing Six Sigma process improvement techniques for mission critical functions. Rich is a Certified CMMI Appraiser and performed many CMMI Level 5 Project appraisals working for Northrop Grumman. Rich also performed many software system project assessments using ISO 25000:2014.
- Nuclear Consulting -Last seven (7) years with Commercial Nuclear Industry as a NQA-1 Lead Auditor, Senior Quality Assurance Engineer and Software Technical Specialist. Expertise includes Independent Review, ASME NQA-1 Audit, Supplier Oversight, Commercial Grade Survey and Software Commercial Grade Dedication for various software types ranging from Digital Instrumentation & Control, Design and Analysis, Software Tools as COTS and Developed. Performing Independent project, program reviews and assessments for large DOE organizations such as WRPS, WTP, and also in the Small Modular Reactors (SMR) areas for NuScale Power. Member of the NQA-1 Subcommittee on SQA acting liaison to IEEE 1028. Have additional expertise in NQA-1 regarding cyber security understanding NEI implementation Reg Guide 5.71.

DETAILED EXPERIENCE

**Nuclear Quality Assurance and Software Engineering Consultant – VonRoble Consulting
Vancouver, WA**

May 2012-Present

- Certified Nuclear Lead Auditor performing consulting services for safety related software design, electronic equipment manufacture, verification/validation and test functions to evaluate effectiveness of quality programs for nuclear industry suppliers.
- Proficient in the development and implementation of 10 CFR 50 Appendix B, ASME NQA-1 (1994, 2000, 2004, 2008/2009a) and DOE Order 414 1.D, 10 CFR 830 Nuclear Quality programs.
- Specialized expertise as a Software Technical Specialist conducting program and product evaluations, assessments, appraisals, audits, commercial grade surveys, surveillance, verification and validation, inspections, internal reviews as well as external supplier audit and vendor reviews.
- Specialized in the development and review of Software/Firmware Commercial Grade Dedication Programs and plans for multiple OEM and Electronics Manufacturing companies including Westinghouse, GUTOR, Woodward Governor, Moog, NuScale Power, and Schneider Electric. Some related activities include:
 - Performing CGD Surveys to verify Built-in Quality
 - Performing Software FMEA evaluation of software and hardware systems
 - Performing code review for cyber security and vulnerability assessment
 - Conducting Critical Digital Review with detailed thread analysis for potential vulnerabilities
 - Performing Technical Evaluations of Software/Firmware products to identify critical characteristics
 - Performing both Independent and internal Validation and Verification Testing
 - Performing independent inspection of CC and acceptance criteria
- Proficient in hardware and software system independent review and verification and validation testing.
 - Specific activities for Calvert Cliffs 2012 (6 module code review 2013).
 - Performed internal pre-Factory Acceptance Testing for Triconex Safety related chassis
- Proficient in performing independent software reviews for safety and non-safety related software systems following IEEE 7-4.3.2 (1028) and IEC 60880 standards.
- Specific work under DOE Order 414.1D and 10 CFR 830
 - Performed extended program implementation and software package review for WRPS, Richland, WA consisting of COTS, Acquired, and Custom Developed software for the Handford site. (Over 100 applications reviewed)
 - Software Technical Expert in the ICN Network Expert Panel review, WTP via Bechtel.
 - Software Technical Specialist Participated in the WTP Quality Assurance review, WTP via Bechtel
 - Software Technical Specialist Participated in the WTP Corrective Action program (CAMP) review, WTP via Bechtel
 - Software Technical Specialist Participated in the WTP Managed Improvement Plan (MIP), WTP via Bechtel
- Performed Software Quality Program assessments and Software Engineering Project Health Assessments for Bonneville Power Administration, Portland, Oregon using ISO 25000:2014 system standards and criteria

Group Leader Nuclear Quality Assurance – Invensys Nuclear Business Group

Mar 2010-Apr 2012

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- Performed embedded system critical digital reviews for safety related control systems undergoing CGD.
 - Performed review of all Triconex and Intelligent Automation embedded system design and test plans related for safety related instrumentation and control systems.
 - Ensure compliance to all Quality Assurance regulations, standards and guidelines (10CFR50 App.B, 10CFR21, NQA-1, IEEE, etc.)
 - Perform Audits, Inspections, Reviews related to the procurement, design, implementation and delivery of both Safety IE and Non-safety related materials and products.'
 - Conduct periodic surveillances/readiness reviews of project activities to ensure project compliance to applicable procedures and regulations
 - Performed project Quality Planning and oversight activities
 - Review test procedures for establishing QA witness/hold points
 - Monitor test activities to ensure procedural compliance
 - Provide a project QA interface with the customer project quality representative(s).
 - Report directly to the Global Quality Director for the Nuclear

Senior Quality Assurance/Mission Assurance Lead (Active Secret DoD Clearance) – Northrop Grumman, Mission Systems

Sierra Vista, AZ

Sept 2008-Mar 2010

- CHARCS Project – Implementing CMMI Level 5 rigor with the software development organizational and project process areas. Implemented NG CMMI Level 5 corporate structure with the Mission System Division by creating the Plans, Process and Procedures to prepare for Level 5 Assessment and Certification. Leading the process improvement effort in all aspects of Project Management covering the entire Software
- Development Life Cycle. Conducting quality management activities and reporting metrics and improvement rationale to senior management in preparation for continued process improvement work.

Verification and Validation Engineering Lead – Siemens Corporation, Molecular Imaging Division

Knoxville, TN

June 2007-Sept 2008

- Senior Software Test Engineer – performing quality assurance analysis, verification and validation for the pre-clinical embedded PET/CT/SPECT systems in particular the Inveon Multi-Modality Acquisition Software suite.
- Creating and implementing software testing regimes, revising and modifying current quality related documents, system test plan and system integration procedures and acceptance testing processes for all hardware and software embedded systems.
- Working with two separate development groups to improve product quality with end-to-end process involvement and team work.
- Working with corporate acquisition team with SAP implementation and Siemens Corporate Software Development Life Cycle processes.
- Developing quality processes in preparation to growing the Quality Assurance group for Pre-Clinical software development.

Quality Assurance Manager (Active Secret DoD Clearance) – DPRA Incorporation
Knoxville, TN

Oct 2002-June 2007

- Quality Assurance Manager – responsible for the development/implementation of quality measures to support many large Department of Defense contracts.
- Produced CMMi processes, plans and procedures to comply with CMMi best practices for a DPRA corporate quality improvement initiative.
- Created the DPRA policy control board to fully document business process and procedures used by the entire organization and specific project work.
- Created the DPRA software development programming standards committee.
- Created software, database, and customer deliverable documentation and training regimes.

IT2-Information Technician – US Naval Reserve, RESCEN
Knoxville, TN

May 2002-May 2005

- CONVAL/ILS – performs duties with SPAWAR as part of the Navy’s ongoing Configuration Management initiative to verify hardware/software systems, identify deficiencies and perform Quality Assurance to support Naval combat readiness and information systems.
- NMCI Deployable – worked with civilian contractors (TITAN Systems) for NMCI GOTS-Deployment process.
- IT-21 Fly Away Team – provided over the shoulder training to sailors at sea for IT, database and Network Engineering specialties.

Senior Software Engineer – Environmental Systems Corp.
Knoxville, TN

July 1998-Oct 2002

- NT Group – Windows development for Data Acquisition Systems. Data loggers monitor power plant stack pollutants to a Unix or Windows NT Server and NT Workstation/Server clients. User interface development using Visual Basic 6.0. Some Active X controls created for this system. COM generally not used, overall system designed using Unix methodology. Most applications command line driven.
- Lead Developer for a newly designed Remote Terminal Unit system to handle RECLAIM regulations for the State of California. System in place at one client site since March 1999 with very few startup problems.

Senior Software Engineer – DeRoyal Industries, Inc.
Powell, TN

July 1995-July 1998

(DeRoyal Business Systems now owned by GE Medical Systems)

- Integration Group – designed and implemented a generic HL7 Interface Engine to communicate between DeRoyal Healthcare software and other vendor applications. Implementation using MS Visual Basic, MS C++ w/MFC, MS SQLServer and Informix Databases on a Windows NT platform.
- Software Research and Development Group – team member in design and implementation of a component ware approach to operating room resource management called “Meridian.”

Windows NT 4.0 platform with Microsoft SQL Server 6.5 with Visual C++ w/MFC and COM. Previously created the VB 5.0 prototype application for this effort called the “Resource Consumption Log” which was used to standardize the components used on various operating room procedures purchased through the DeRoyal manufacturing system.

- DeRoyal Business Systems – applications for operating room management. Created a Delphi 2.0 application called “Instrument Manager” which helped hospitals organize and assemble trays of surgical instruments.

Electronics Technician 1st Class Petty Officer, Navy Nuclear Power Instructor – United States Navy

July 1979-Jan 1988

- Operations and maintenance of Reactor Controls for Navy Submarine and Surface power plants.
- Confidential to Secret DOD Operational Clearances.
- Qualified Reactor Operator, Reactor Technician, Shutdown Reactor Operator.
- Received Captains Letter of Appreciation for Emergency Rod Testing at Sea.
- Served onboard USS Carl Vinson (CVN 70) from initial shipyard trials.
- Performed duties as Work Center Supervisor for #1 Reactor Plant.
- Honorably Discharged Jan 1988

PROFESSIONAL ORGANIZATIONS

ASME NQA-1 Committee, Software Quality Assurance Sub-committee, 2014

EDUCATION

Project Management Program (PMP), Portland State University, 2012

Carnegie Mellon Software Engineering Institute, CMM & CMMI (Continuous, Staged), 2002

University of Florida, Gainesville, FL, 1995

Bachelor of Science in Engineering-Computer Science
National Honor Society, Phi Theta Kappa

US Navy Nuclear Power and Electronics Schools, 1981