

CAREER SUMMARY

Rich and dynamic experience of over 16 years in software development, system integration and project administration. Lateral thinker with ability to take objective decisions, analytical mind with troubleshooting, organizational and interpersonal skills. An engineer with expertise in electrical, communication and software systems. Experience in the life cycle of the system and software development including requirements definition, prototyping, proof of concept, design, interface implementation, testing and maintenance. Extensive skill knowledge in mission critical systems, model driven architecture, SysML, UML, IEEE 12207, SEE based on QT, C/C++, VC++, DDS, Red Hat Linux 6.x/Windows and configuration management based on IBM rational suite. Extensive experience in negotiation and administration of high value contracts involving multiple stakeholders. Looking for opportunities to manage projects related to software and systems engineering.

AREAS OF EXPOSURE

Project Management

- ✓ Extensive experience in project scheduling, budget management, risk management, communications, resource management, timeline management in software intensive systems.
- ✓ Development of proposals, tendering, technical & commercial bid evaluation, contract placement and project monitoring.
- ✓ Systems engineering and software development processes and quality assurance & control, in accordance with ISO 9001-2015, ISO/IEC 15288, IEEE 12207, IEEE 1471 and CMMI.
- ✓ Development and compliance of project documents with specified standards.
- ✓ Software quality processes and reviews/ audit based on ISO 9001-2015, IEEE 730 and ISO 19011.
- ✓ Experience in managing software and system integration centric projects with Indian Navy, Private and Public firms including collaboration with leading foreign firms.

Design & Development of Software Systems

- ✓ Domain expertise of Command and Control (C2) Systems and knowledge of C4ISR (DODAF) systems.
- ✓ Multidisciplinary cross-functional teams through projects on waterfall, agile or iterative development cycle.
- ✓ Development of distributed software systems based on open architecture, model driven architecture, design patterns, middleware, multilayered GUI and functional & non-functional quality attributes.
- ✓ Software development based on Object Oriented Design, Multithreading and Socket Programming.
- ✓ System integration of mission critical systems communicating over digital data bus viz, Ethernet (TCL/IP, UDP, Uni/Multicast), DDS over Ethernet, Serial (RS 232, 422, 485), SDLC and MIL-STD-1553B.
- ✓ Software Engineering Environment (SEE) for development, configuration management, testing, application deployment and maintenance.
- ✓ Design and development of software modules, simulator, data acquisition and analysis tools based on real time and soft real time requirements.
- ✓ Knowhow of hardware (COTS & Mil grade) for prototype and production version of distributed systems.

Electrical Officer and Administrator

- ✓ Diverse experience in electrical, electronics and communication systems, safety and management engineering, logistics, procurement, training, naval operation, security management and personnel administration.
- ✓ Forecasting and adjusting decisions in a high-pressure environment onboard operational ship.
- ✓ Generation of documents in a timely manner, including correspondence, evaluations/fitness reports, awards, messages, directives, and reports.
- ✓ Formulate plans, program, policies and procedures for use and maintenance of shipboard systems.

PROFESSIONAL EXPERIENCE

M/S Real Time Tech Solutions, New Delhi
Senior Systems Manager-Software Development

Dec 2014-to date

- ✓ Successfully steered contract for Offshore Development Centre with Ministry of Defence providing business worth to CAD \$ 1 million to the firm.
- ✓ Worked closely with development team consisting of 20 senior developers and software engineers to meet customer requirement as per software build plan.
- ✓ Lead development team for project review, interaction with stakeholders and monitoring of milestones.
- ✓ Ensured development of 08 software modules each of 3-5 KLOC for data centric management system based on real time operating system, open architecture framework over C++ and QT.
- ✓ Managed IBM rational suite based software engineering environment over distributed locations.
- ✓ Steered interactions with external system suppliers for integration of systems in architectural framework.
- ✓ Lead team in development of integration and validation plan for management system consisting of 15 external interfaces over Ethernet, DDS over Ethernet, Serial (RS 232, 422, 485, NMEA) and MIL1553B.
- ✓ Lead team in development, review and finalization of Interface Control Documents (ICD) for 20 interfaces based on digital and analog communication standards.
- ✓ Participated as technical lead in interaction with French OEM for joint development of Integrated Platform Management System Simulators for ship application.
- ✓ Worked closely with team for development of technical proposal for simulator suite of network centric system for future project of a major Indian Lab.
- ✓ Worked closely with team consisting of representative of leading foreign firm for proposing solution based on secure Separation Kernel Hypervisor for major Indian client.

Ministry of Defense (R&D), New Delhi
Deputy Project Manager

January 2013-November 2014

- ✓ Ensured effective management of projects for development of electrical, tactical and control systems for special naval platforms through Indian, leading foreign firms, worth CAD \$ 6.2 million.
- ✓ Lead the team for finalization of requirements, tendering and contractual negotiations for setting up a Shore Integration Facility for electrical, communication and control systems of special naval platform.
- ✓ Oversaw successful acceptance trails for major ship borne distributed computing systems based on real time operating system, digital communications and extensive GUI features.
- ✓ Participated in technical and commercial assessment of software intensive naval situation systems for special naval platforms worth CAD \$ 13 million with a leading Indian defence firm.
- ✓ Participated in qualification and justification review based on ISO/IEEE norms for a marine data/network centric distributed computing system with leading French firm.

- ✓ Coordinated with engineers, vendors and clients from diverse geographical locations (India and abroad), to design and develop interface scheme for real-time software intensive combat system suite for special naval platforms.
- ✓ Lead highly specialized team of engineers in conduct of system integration trials of 19 in number control systems, navigation aids, visual information and communication systems over multitude of digital and analog interfaces.
- ✓ Development of interface control documents involving multiple stakeholders based on analog, discreet, Ethernet, serial, Mil 1553 and SDLC standards.
- ✓ Conducted integration trials for command and control system with sensors like Radar, Sonar, Periscope, and Communication systems at Indian and foreign facilities.
- ✓ Design, development and deployment of Multifunctional display system based on real time operating system Vx Works, Power PC, graphics processor, touch screen and multilayered GUI.
- ✓ Spearheaded development of software emulators based on COTs hardware, Windows OS, MS VC++, MFC for 18 in number control, electrical, communication systems worth approx. CAD \$ 4.0 million.
- ✓ Feasibility study for development of real time computing based navigation system leading IT firm.

Indian Navy,

Electrical Officer, Mumbai

May 2011-Feb 2013 and Apr 2001-August 2004

Electrical Systems Instructor, Kochi

August 2004-June 2005

- ✓ Directed electrical engineers and technicians during 24/7 mission critical operations and maintenance activities of a range of software intensive power generation equipment, control systems, navigation aids, visual information and communication systems.
- ✓ Managed multiple teams of engineers and took them through various maintenance routines for electrical systems onboard.
- ✓ Supervised major hardware and software upgrade for mission critical UAV control system with participation of naval dockyard engineers and specialist from leading foreign firm.
- ✓ Ensured human resource planning, training, recruitment, appraisal and career development resulting in awards of commendation for one officer and four sailor during tenure onboard.
- ✓ Participated in feasibility study for fitment of Electronics Surveillance system with leading foreign firm resulting in acceptance and finalization of the contract.
- ✓ Ensured operation and maintenance of equipment like Sonar Simulator, Low Frequency Towed Array, Fire Control Simulator in training labs.
- ✓ Management of Information System, Data Base System, Training Evaluation Software and Network Administration in the training facility.
- ✓ Participated in the e-learning initiative for the establishment with a leading Indian IT firm.
- ✓ Responsible for instructional classes for electrical engineering aspects viz, basic electricity and electronics, mathematics, electrical controllers, electrical motor, transformers, safety and security aspects of equipment for student officers including students from foreign navies under exchange program.

COMPUTER PROFICIENCY

- ◆ Languages : C, C++, VC++, SQL, XML
- ◆ Operating Systems : Windows, Linux

- ✦ IDE : Microsoft .NET, Eclipse, QT
- ✦ GUI Builder : GDI, QT, GCF, OpenGL
- ✦ Networking : L-3 network, Data Representation, Addressing, TCP/IP, UDP, STP/RSTP, VLAN, MIL-STD 1553, IPX/SPX, RS422
- ✦ Technologies : Object Oriented Methodologies, Socket Programming, Multithreading, UML, IBM Rational Rhapsody (SysML), Middleware (DDS), PostgreSQL/PHP
- ✦ Utilities : WinMerge, Visio, Rhapsody, Wire shark(Network Analyzer), Doxygen, MS Project, MS Excel, dot Project, MS Sharepoint
- ✦ Configuration Tools : IBM Rational (Synergy, Change, Doors, Logiscope), VSS

OTHER ACCOLADES

- ✦ Awarded Commendation by The Chief of Naval Staff, Indian Navy for exemplary contribution for system integration activities.
- ✦ Represented Defence Ministry in Navigation Conference (NAV07) at Royal Institute of Navigation, UK

EDUCATION

- ✦ **Master of Science (Software Systems)** **2008**
Birla Institute of Technology, Pilani
- ✦ **Bachelor of Technology in Electrical Engineering** **1999**
Jawaharlal Nehru University, New Delhi
(Dovetailed with Naval Engg Course, Pune)

PROFESSIONAL COURSE/ CERTIFICATION

- ✦ Certificate course on Quality Assurance in Information Technology through Llyod's Register LRQA.
- ✦ Course on Navigation System of naval application through leading foreign ship design bureau.
- ✦ Electrical Engineering Specialization, Electrical Technology School, INS Valsura at Jamnagar.
- ✦ Electrical Officer Apprenticeship onboard Navy ship.

LANGUAGE PROFICIENCY

- ✦ English and Hindi

Reference available upon request