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Bruce M. Spidel

GOALS

Assist organizations in: capturing and treating, internal and external, system and process requirements. Participate in definition and development of high value development tools or technical applications. Influence organization toward quality improvement. Work among creative designers in a collaborative environment.

SUMMARY OF QUALIFICATIONS

Seasoned, energetic, persistent, collegial, system architect, designer, software developer and technologist with twenty five years of continuous experience in system and software development of telecommunications operations systems, hardware test systems, as well as development of other applications, development methodologies, and quality improvement processes.

SKILLS

SYSTEM ENGINEERING AND ARCHITECTURE:

Fifteen years of high level design, design specification writing, requirements analysis and specification; design for performance improvement; design of tools and subsystems for high reliability fault resistant command delivery and machine-machine processing subsystems; design of high speed status processors; design of model-based GUI application development tools; relational database design; client-server and peer to peer architecture design; practitioner of Systematica methodology.

PROGRAMMING:

Twenty five years of programming, fifteen in unix, with extensive use of unix filter tool set, including: m4, sed, awk, yacc and lex; object oriented analysis, c and c++ development of tools, platforms, and applications; programming in: Pascal, java, javascript, Fortran, Visual Basic 6, VBA, bash and unix shells and assembly language; X-windows Motif GUI development; web server side CGI using ksh, perl, php for xml and html generation, and application programming; Oracle, Ingress, mysql, SQL Server and MS Access RDBMS application and GUI/RDBMS integration; Lab View device management; development of real time status processing and display systems; DTD generation and xml data exchange; network application development using TCP; development in multiple unix and PC OS environments, including: IBM AIX (unix), Sun Solaris (unix), DOS, Windows/95, 98, NT, 2k, XP and Vista. Extensive MS office automation development.

HARDWARE DEVELOPMENT:

Development of vacuum head test fixtures for automatic test of printed circuit boards; development of programmable test system interfaces for circuit board repair.

APPLICATIONS:

Carrier network management applications, including: trouble ticketing and dispatch, real time fault management, switching and transmission service provisioning, design of complex message (service order and alarm telemetry integrating TL1 and SNMP devices) processing subsystems and applications, large scale (3,000 CO, 30,000,000 subscriber) switching performance management; performance management report generation interoperating with SAS; application to application data migration; leading customer request feature set development cycles averaging less than 60 days from request to deployment, system engineering requirements analysis tools, web deployment tools.

METHODOLOGY AND DEVELOPMENT QUALITY ASSURANCE:

Quality system based traceable requirements, design, and verification systems; quality improvement instructional techniques for organization-wide software process quality improvement.

DEVELOPMENT MANAGEMENT:

Management of small groups of: system engineers, test engineers, quality analysts and embedded software developers.

CUSTOMER REQUIREMENTS ANALYSIS:

Analysis of customer request for quotations; generation of technical concept proposals; technical proposal writing and general support of proposal process; rapid proposal and delivery cycle approaches.

E D U C A T I O N

TUXEDO FUNDAMENTALS 1999
BEA Training, Dallas, TX

CERTIFIED QUALITY IMPROVEMENT INSTRUCTOR 1988
Crosby Quality College, Winter Park, FL

BACHELOR OF SCIENCE, ELECTRONICS TECHNOLOGY 1977
Indiana State University, Terre Haute, IN

P R O F E S S I O N A L   E X P E R I E N C E

Spidel Tech Solutions, Inc., Terre Haute, IN, 2003 - Present
PRINCIPAL TECHNOLOGIST

- Provide Contract based Engineering Professional Services including; Systems Engineering, Software development, Business Financial Report Development, Technical writing and Training, to local businesses and telecommuting to remote businesses. Recent completed projects include;

  - Developed Interactive Voice Response system to track health care service delivery for regional ISP.

  - Developed Technical Proposals included in response to multiple state RFPs for Pytrus Systems.

  - Banking Reports in Crystal Report with SQL Server.

  - Web based telecom performance management prototypes for major telecom service provider using Perl, javascript and MicroStrategy.

  - Research and recommendation of third party reporting product for inclusion in telecom performance measurement System.

  - Requirements analysis of system modeling tool for aerospace company.

  - Complete 100+ page web site design and deployment for non-profit organization.

- Ongoing, internally funded product development of Systems Engineering tools and web deployment tools, using MS Excel, VBA, Realbasic, php, apache and mysql.

International Centers for Telecommunications Technology, Inc., Terre Haute, IN, 1998 - 2003
SENIOR SYSTEM ENGINEER

- Developed HTML oriented Configurable Form Tool supporting abstract methodology based interface to Requirements and Design Repository.

- Participated on team to develop Business Development Analysis Collaboration Tool.

- Responsible for the architecture design and implementation for a Unix based work force management product.

- Developed tools for importation of use case requirements and designs into Oracle database.

- Developed Case tool for Requirements management inter-operating with DOORs.

- Designed Peer-to-Peer Interface for Performance management Applications.

- Designed Data migration strategy, executed implementation and deployment to leverage legacy telco fault management system using: SQL, Sybase, Oracle, Unix, FTP, Telnet, Shell and other tools in a few months.

Applied Digital Access, Inc., Terre Haute, IN, 1996 - 1998
Product Architect, Telecom Operations Systems

- Establish high level designs for new product features and subsystems for telecom operations systems for fault and performance management.

- Participate in follow-on detail design and implementation of product capabilities.

- Designed metadata-based GUI forms subsystem that automatically adapts OSS user interfaces to changes in database design without manual user interface reprogramming, including automatic layout generator, and integrated with Oracle-based RDBMS environment.

- Designed and developed a Web-enabled OSS report development and customization and run-time GUI for management and statistical reporting, performance tuned to electronically distribute very high volumes of reports (millions of reports annually).

- Analyze Request for Quotations and develop Proposals for Fault Management OSS systems and features.

- Support design needs for ongoing release development of switching performance management systems handling up to 3,000 central offices per carrier client.
- Developed integrated product specification development and evolution system for rapid high quality product feature development across development cycles from quotation through deployment.

Applied Computing Devices, Inc., Terre Haute, IN, 1979 - 1996
PRINCIPAL ENGINEER 2 YEARS

- Lead designer for Unix-based switching line side Recent Change provisioning system, automatically analyzing service order machine-machine feeds from upstream order systems, and carrying out provisioning of orders into stored program control switches, using table driven translations of orders into switch control commands including complex sequential combination rules to manage intelligent switching services feature sets.

SENIOR DESIGNER / GROUP LEADER 4 YEARS

- Performed or led system designs for Unix-based telecom carrier OSS systems for integrated fault, configuration, and performance management in transmission and switching.
- Performed and led design of Motif-based real time map-based graphic status displays and graphic network configuration display, tracking and interaction interfaces, automatically updated with network configuration and real time status, using model-based design.
- Performed and led design of Finite State Machine high reliability inter-system controls application development platforms and tools, and their application to specific telecom carrier OSS applications for reliable delivery of network dynamic reconfiguration controls to network elements and end-to-end network services.
- Designed and implemented a License Manager for application feature set deployment configuration management, and a context-based hypermedia graphically based user Help subsystem.

SOFTWARE QUALITY ANALYST 3 YEARS

- Managed department of Software Quality Analysts that regularly audited Requirements against Designs and developed Requirements based Test Plans.
- Provided company-wide Quality Improvement instruction, developed methods for auditing Requirements, Designs, and Implementations as well as constructing Acceptance Tests from requirements based upon IEEE and similar structural standards; certified by Phillip Crosby Quality College as Quality Improvement Instructor.

SOFTWARE DESIGNER 2 YEARS

- Co-designer of the company's Unix-based telecom carrier Trouble Ticketing product line used for clerical repair service bureau and network operations trouble data capture, tracking, dispatch, work management, closure, and operations quality analysis; feature sets including automatic merging of workflows for scheduled preventive and trouble corrective maintenance.
- Designed real time product line's core real time product MegArray dynamic network status repository and high speed correlation and state propagation/reasoning data structure based platform subsystem utilizing connectionist relational reasoning based upon rules and network configuration.

MANAGER, TEST ENGINEERING & SOFTWARE FACILITIES 3 YEARS

- Managed the design and support for automated test systems used for factory test of the company's telco OSS product lines.
- Managed Engineering Software Laboratory facilities for Engineering, centered on networked Unix development and engineering test systems.

SOFTWARE GROUP LEADER 1 YEAR

- Performed or led the development of software releases for the company's product line of telco central office based adjunct processor systems, deployed to thousands of CO's involving hundreds of CO switch generic software feature package configurations.

PROGRAMMER ANALYST 2 YEARS

- Established the architecture and developed the software for the company's line of CO based adjunct processor products, including multi-tasking, multi-ported application packages supporting fault and performance management of the digital CO network.

INDIANA STATE UNIVERSITY, Terre Haute, IN, 1983 - 1986
ADJUNCT INSTRUCTOR

- ECT 466-566 Industrial Computer Management

S.C.A.T. CONSULTING, Terre Haute, IN, 1977 - 1979
SOFTWARE CONSULTANT

- Computer business systems consultant for regional business and industry clients.