Edward B. Horch

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SUMMARY OF QUALIFICATIONS

Over 40 years of experience in all phases of Unix/Linux-based software development. Expert in development processes and software configuration management. Skilled in managing and delivering small and challenging projects within large systems, as well as interacting with internal and customer organizations. Resilient and adaptable to emerging technologies and evolving project needs. Experienced in Unix/Linux system administration. Proactive self-starter with excellent spoken and written communication skills. Accomplished software developer and tester at the system or application level. US citizen with active Top Secret clearance.

PROFESSIONAL EXPERIENCE

LGS Innovations/CACI International, Florham Park, NJ Software Engineer, Internet & Cybersecurity Research Dept.

2018-Present

- Senior engineer for a 4G/5G LTE modeling and simulation project, using live smartphones and eNodeBs, and a simulated EPC using Keysight EXata with significant local enhancements.
- Worked closely with other organizations whose products are integrated into this one.
- Played a critical role in taking the product from a working prototype to deliverable product.
- Wrote all customer-deliverable documentation and many internal documents.
- Prepared and conducted hands-on end-user training for customers.
- Tested the product using carrier-grade hardware in place of virtual EPC components.
- Administered the product's air-gapped development lab network and related services.
- Devised customer maintenance procedures for air-gapped instances of the product itself.
- Specified, purchased, and installed much of the hardware for several instances of the product.
- Deployed Nagios monitoring of all hardware components including environment sensors.

Alcatel-Lucent/Nokia, Murray Hill, NJ Technical Consultant, Wireless Networks

2010-2018

- Instrumented builds of a large embedded OS and application product targeted to several hardware platforms, to find bottlenecks. Produced timing graphs as additional artifacts.
- Used that data to optimize the build procedure and scripts for 75% reduction of turnaround time.
- Ported several projects' builds to Hudson/Jenkins, allowing key developers to initiate official product builds, in turn reducing the need for dedicated build/release engineer headcount.
- Performed product builds for several projects worldwide.
- Documented many processes and procedures so they could be performed with minimal training.
- Consulted as subject matter expert on sizing, tuning, and location of ClearCase/Multisite servers.

SAIC, Red Bank, NJ 2004-2010

Senior Software Engineer, Future Combat Systems

- Development lab architect and administrator for large distributed development effort.
- Deployed and administered ClearCase MultiSite 5.0 through 7.0 at three sites.
- Specified and built out 100-machine development/testing laboratory for same organization, including client workstations and embedded hardware test beds.
- Achieved four-nines uptime for core servers and storage arrays, with no data loss, ever.
- Optimized MultiSite code delivery process saving thousands of staff-hours per year project-wide.
- Directly supported hundreds of development lab users locally and at many remote sites.
- Subject matter expert for ClearCase, providing consultation to other projects, as well as to other sites within primary project.
- Received multiple written commendations from SAIC and prime contractor.

Leapstone Systems, Somerset, NJ

2002-2003

Software Configuration Management Engineer

- Sole SCM engineer for an 80-developer startup across sites in USA, Canada, and India.
- Deployed ClearCase 5.0 with UCM in mixed Solaris/AIX/Windows XP, C/C++/Java environment.
- Negotiated SCM policies across all development teams.
- Defined and documented UCM projects, metadata conventions and build procedures.
- Developed ClearCase triggers to enforce fundamental policies.
- Developed and maintained a single set of product build scripts used by all projects.
- Constructed web-based facility that enabled lead staff to initiate official product builds.
- Performed all official product builds prior to web services deployment.

Hewlett-Packard Co., Florham Park, NJ Software Engineer, HP-UX

1996-2001

- Project manager and lead developer for Rock Ridge extension to HP-UX CD-ROM file system.
- Wrote requirements, project plan, design documents, high-level test plan, and end user documentation. Supervised test engineer.
- Coordinated work with large external customers and internal HP organizations.
- Developed all kernel and userland code. Updated affected internal and user documentation.
- Designed and implemented makefiles to tie separate HP-UX code bases into one source tree.
- Standardized all makefiles for parallel build support and maximized build avoidance and wink-in.
- Enhanced build environment for multiple target hardware platforms
- Completed and delivered access control list capabilities for HP-UX's journaling file system.
- Wrote delivery plan including impact analysis of wide spread code changes.
- Developed acl(2) system call API, created or modified 18 user commands.
- Designed, built and administered 15-machine test ring for HP-UX core file system team.
- Deployed V-class and Superdome machines for file system performance and scalability testing.

Unix System Labs/Novell, Inc., Summit, NJ Software Engineer, Unix System V Release 4

1993-1996

- Participated in evaluation of commercial tools to replace the existing source control and bug tracking tools used for the UnixWare and NetWare products.
- Designed and implemented tool set for importation of existing source base into ClearCase.
- Designed comprehensive set of trigger scripts to integrate ClearCase with existing bug tracking system.
- Provided SCM and build support for SVR4/UnixWare's C/C++ compilation toolchain.
- Automated and standardized processes, reducing build turnaround time by a factor of eight.

AT&T/Bellcore/Bell Labs, multiple NJ locations

1984-1993

Technical Consultant, various projects

- Technical lead of a team of five providing SCM support for twelve medium-sized projects.
- Developed tools to standardize and automate SCM and build activities.
- Participated in development of a telephone management system for Centrex users.
- Developed an interpreter in C++ that enhanced maintainability by replacing large amounts of repetitious code with short scripts.
- Member of testing team for a large data networking product.
- Participated in development of call processing firmware for 250-line PBX.

EDUCATION

Bachelor of Science, Computer Science, Rutgers University, New Brunswick, NJ.