

SUMMARY OF QUALIFICATIONS

Professional software engineer with diversified development experience across multiple languages and operating systems with a commitment to develop a quality product. Specific experience with the following:

Languages: C, C++, ADA, Perl, Python, Java, Expect, Fortran, Pascal, Basic, Snobol, Lisp
Assembler: 80X86, M680X0, VAX, HCX9, NS16032, Z8000, 8080, 6502
COTS S/W: Visual Studio, Oracle, mySql, Tuxedo, ClearCase/Clearquest, TeamWork, Insure, Doors
API's: Standard Template Library, pthreads, X Windows, Motif, OpenGL, GTK+, MFC
Operating Systems: Linux, Solaris, HP-UX, IRIX, BSD, System V, HCX-UX, Windows Server 2003, XP, NT

PROFESSIONAL EXPERIENCE

SIEMENS ENTERPRISE COMMUNICATIONS, Lake Mary, FL 2000 – 2009

Senior Software Engineer

- Member of a 10-person team that ported 16+ million lines of C++ and Java code for the HiPath 8000 Voice over IP Softswitch from Solaris to Linux within six months. Designed and coded the perl and bash installation scripts that would, depending on the configuration, install a single node or a two-node cluster. Debugged system startup problems and core dumps.
- Designed and implemented a memory subsystem for the HiPath 8000 SIP (Session Initiated Protocol) process to provide for the dynamic allocation of shared memory using C++ and templates. Extended the design to allow dynamic allocation of strings within shared memory. This task resulted in the development of 5000+ lines of new code and 15000+ lines of modified code within nine months.
- Designed and implemented a generic resource monitor using C++ and pthreads that allowed multiple processes to register and identify resources along with low, medium, and high limits to monitor. Updated the SIP subsystem to use the resource monitor.
- Designed and prototyped the automated regression test system, which aggregated individual tests into a common installation and single master test script which ran all of the tests. Supervised team members who modified their tests to send the results to a database. Worked with the web designer that implemented the web user interface to the database for the purpose of presenting test results to management. Wrote the GUI interface to the master test script using Python and GTK+.
- Responsible for the software development lab that provided computing services to all the developers on the team. Tasks included the installation and configuration of the HiPath 8000 single nodes and cluster systems, developers Linux desktops, Windows Server 2003, and XP computers. Maintained a Linux install server, which provided NFS, Samba, mySql, Apache and backup services. Modified the HiPath installation and subsystems so that the HiPath could be installed on a Xen virtual machine so that four different releases could be effectively supported on the existing hardware.
- Maintained and extended the Common Platform Solaris device driver. Initially the driver supported LAPD, raw ethernet, and TCP. Worked with the vendor to debug the LAPD PCI card. Added code to support the SCTP and UDP transports.

LOCKHEED MARTIN CORPORATION, Orlando, FL 1989 – 2000

Senior Software Engineer

- Lead engineer on a five-person team that ported AFIS (Advanced Fingerprint Identification System) from a cluster of Convex and HP UNIX systems to a single HP K410 computer, which consisted of over one million lines of C and SQL. Identified tasks and assigned them to co-workers, monitoring their progress and verifying the functionality of the system.
- Used Visual C++ to implement the fingerprint card scanning and the main status table subsystems as part of RFES (Remote Fingerprint Editing Software.) See: <http://www.fbi.gov/hq/cjisd/rfes.pdf>.

LOCKHEED MARTIN CORPORATION, continued

- Used Visual C++ to implement the subsystems to perform fingerprint, image, and signature capture interfaces for a fingerprint enrollment station.
- Designed and implemented bitmap editors using C, X Windows, and Motif to create texture patterns for the Digital Radar Land mass Simulator. Reused the code and implemented a weather pattern editor. Created over 10,000 lines of code in one year.
- Enhanced and maintained TARGET (Training and Rehearsal GEneration Toolkit) which is a visual database generation system written in C, C++, and Fortran. Maintained the program that processed satellite imagery. Also provided patches for the surface modeler, 3D modeler, and terrain generation programs.
- Wrote a file import plug-in for Adobe Photoshop to display geographic elevation data.
- Designed and implemented a real time instrumentation of millimeter wave radar data using ADA and 68030 assembly language. This included writing the device drivers for SCSI, 1553 and D/A interfaces.
- Reused and enhanced the operator console and instrumentation software to implement a program that would perform data reduction of radar data.
- Wrote the software that interfaced to all of the hardware devices for Pathfinder, an infrared night vision system for the F15 and A10 aircraft using ADA.
- Wrote the startup and initialization for CNCE (Communication Node Control Element) in Z8000 assembly language.
- Designed and implemented a user definable real time simulator for generating 1553 bus traffic in Z8000 assembly language.

EDUCATION

Bachelor of Science, Computer Science, East Stroudsburg State College
East Stroudsburg, PA

Completed 21 credits toward Master of Science, Computer Science, University of Central Florida
Orlando, FL

Completed 2 ½ years of coursework, Electrical Engineering, Drexel University
Philadelphia, PA