SENIOR SOFTWARE ENGINEER

Summary

Seeking a challenging position in software development that utilizes my many years of work experience in software development and my master's degrees in Computer Science and Electrical Engineering. A well accomplished software engineer with 10+ years of experience in Object Oriented software development and algorithm implementation. *Developed software using C/C++, Java, Python, Perl on UNIX and Windows platforms. *Implemented imaging, placement and various other algorithms. *Strong knowledge of object-oriented programming and experienced methodical troubleshooting and agile development skills.

Highlights

Computer Languages: C /C++, STL, Java, Python, Perl, Shell Scripting, HTML, Assembly Language, SQL, Object-C. *Operation Systems: Windows, UNIX (Mac OSX, Linux, Solaris, HP-UX, Aix). *Portable code writer.

Experience

Senior Software Engineer 02/2007 to 01/2016 Caci International Inc.

- Key developer in PV-WAVE development group.
- PV-WAVE is an array oriented fourth-generation programming language used to build and deploy VDA applications and provides software developers with high productivity tools needed to efficiently and accurately meet data analysis requirements.
- Development Environment and Skills: Unix (Mac OSX, Linux 32/64bit, Solaris 32/64bit, AIX32/64bit, HP-UX 32bit), Windows (XP 32/64bit, Windows 7/Windows 8.1), C++/C, Java, Python, Unix shell scripts, Oracle DB.
- Designed, developed and tested new features for PV-WAVE applications on the Unix and Windows platforms.
- Ported PV-WAVE on new platforms and new operation systems, such as Mac OSX (version 10.6, and 10.8) and Linux Red-hat platform.
- Developed new features, such as adding Windows Widget tabbing functionality, adding some Windows Touch Gesture's message for the PVWAVE Window GUI application and adding new library routines for external data representation on 64 bit platforms.
- Redesigned and coded due to 3rd party library upgrade on Unix and Windows platforms, for example updating dblink package codes due to supporting oracle 10g and 11g on 64bit Unix platforms, updating image package codes with using the newest 3rd party library ImageMagick.
- Fixed bugs including long-standing issues.
- Responsible for daily PV-WAVE build system on Unix and Windows.
- Used CVS and SVN as the source control system.

Software Engineer 12/2000 to 12/2005 Iora Health

- Lead developer of production Bit stream generation for Lattice FPGA and CPLD devices (Embedded systems) in a large complex development environment.
- Lattice Semiconductor Corporation engages in design and development programmable logic devices and related software.
- Development Environment and Skills: Windows NT, Linux, Solaris, C/C++, Perl, Make, ncs, Java.
- Responsible for creating, writing and testing the new software code required for all new FPGA devices bit stream, compressed bit stream and encrypted bit stream generation (C; C++; Perl, STL).
- Responsible for enhancing and analyzing the existing software code to meet function requirements(C; C++).
- Responsible for development verification tool of Lattice CPLD and FPGA devices (Perl, C).
- Fixed critical defect tracking software bugs(C/C++).
- Responsible for internal verification tools and utilities used for internal Unit and System Level Integration testing (make, Perl, C/C++, java, HTML).

Research Assistant 01/1999 to 01/2000 Minnesota Gastroenterology

- Development Environment and Skills: Windows NT, UNIX(Solaris), Linux, MS Visual Develop Studio, C/C++, java, Shell Scripting.
- Applied C/C++ and Khoros software to implement the design of hyperspectral imaging system (IDLDE, C/C++, Shell Scripting, and Khoros).
- Implemented the image operation by IDLDE: to implement the corrective filter by estimating the darkfield and brightfield responses to recover an image, to enhance images by using gray-level transformations and by removing the noise, and to restore an image using the Wiener filter.
- Implemented the classifiers (Bayesian, Parzen window, KNN, perception and winnow) with C++ and implemented the modified basic sequential clustering algorithm with C (Unix, Linux, java).

01/1999 Bickford Senior Living

- Windows, MS-DOS, Visual Basic, Assembly Language, C.
- Developed algorithms for circuit placement, and via minimization.

Education

M.S : Computer Science Univ. of NE City , State Computer Science
M.S : Electrical Engineering State , China Electrical Engineering
B.S : Electrical Engineering Anhui Univ. China Electrical Engineering

Personal Information

Implemented the genetic algorithm and its applications in solving maximum flow problem, travel salesman problem, and shortest path problem. *More than ten published papers (Available upon request).

Skills

AIX, Assembly Language, Assembly Language, basic, C, C++, clustering, CVS, data analysis, Embedded systems, estimating, features, GUI, HP-UX, HTML, image, imaging, Java, Linux, logic, Mac, Windows 7, Windows, Window, Windows 8.1, Windows NT, Windows (XP, MS-DOS, ncs, oracle, Oracle DB, developer, Perl, programming, Python, Red-hat, Shell Scripting, software developers, Solaris, SQL, UNIX, Unix shell scripts, upgrade, utilities, Visual Basic, writer

Additional Information

- Implemented the genetic algorithm and its applications in solving maximum flow problem, travel salesman problem, and shortest path problem. *More than ten published papers (Available upon request).