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Career Goal

Software Engineer with 15 years' experience seeks position designing and maintaining large system software using Python as primary language

Software Development Summary

• Developed test automation and simulation software for a large distributed computing fire alarm system using Python, Tornado, Websockets, JavaScript. Built a Web Portal for Quality Control of System Tests using Python, Flask, JavaScript, HTML, and REST interface. Configured remote AWS server using Docker container. Built a Linux thread performance measurement tool and protocol analysis tool for Voice network using Python and Matplotlib. Configured Jenkins Server for daily builds. Developed embedded firmware for a critical module in the company's global fire alarm system using C++. Provided support for source control, building and deploying using: GitLalb, Jenkins, AWS, Docker.

• Designed and maintained user interface software for consumer electronics manufacturer of treadmills, ellipticals and bikes. This included C/C++, SQL-Server and MySQL database access, graphical user interface screens and remote monitoring of the system.

• Lead member of software development team testing the performance of a portable medical ventilator using VB.NET. Documented all test results for FDA submission.

• Designed a robust, extendable software architecture for robotics and automation equipment in the semiconductor equipment sector. Developed, debugged and deployed applications using Visual Basic, VB.NET, C/C++ and assembly language.

• Developed Vision System software for precise alignment of parts, and inspection of defects in a telecommunications application using National Instrument's LabView. Programmed PLCs and other embedded controllers.

• Built user friendly systems incorporating Graphical User Interfaces, Relational Database Systems, networked PC's, and status accessibility via Visual Basic and CGI.

• Designed and implemented a multi-user purchasing and inventory system for a medical laser company using Microsoft Access.

Technical Skills

Programming Languages: Python (Pandas, Numpy, Tornado, Flask, Matplotlib libraries), C/C++ for Linux OS, JavaScript, HTML, Visual Basic.Net, C-Sharp.Net.

Software Applications: Eclipse IDE, Microsoft Visual Studio. MySQL, SQLAlchemy Databases. Gitlab, Docker, AWS ec2. Rational Team Collaboration (RTC) JAZZ, ClearCase, Subversion source cotrol.

Work Experience

February 2012 to Current: Siemens: Level 4 software developer for a manufacturer of Fire Alarm systems. Architect and lead developer for fire alarm system test automation and simulation tool written in Python. Led development of the Voice Control Card software applications written in C++, running in Linux.. Built test tools and infrastructure for developers (Python, Virtual Machine, simulations, build tools, test scripts). Wrote architecture and high level design documents. Provide design leadership for an international team, and provided help for anyone stuck on building the software or understanding how to implement it.

June 2006 to November 2011: Pacemaster, LLC: Primary Software Engineer for consumer goods fitness equipment manufacturer. Designed and maintained software for Elliptical and Treadmill machines. Features included Linux operating system, graphical user interface, image drawing and manipulation, and access to databases. Wrote Linux device drivers in C language and application software in C++ on the Eclipse platform.

November 2004 to June 2006: Impact Instrumentation Corp. Senior Software Engineer for a portable medical device manufacturer. Wrote software requirements, test plans, and detailed architecture documents. Programmed PC software in Visual Basic.Net for automating, calibrating and trending the ventilators. Wrote code for the embedded processors in the DSP module and the user-interface module for an advanced ventilator.

September 1997 to October 2004: Creative Design Corp. Principal Software developer for a consulting firm specializing in advanced solutions for the semiconductor and telecommunications sectors. Used Visual Basic and Visual Basic.NET to implement automation control and user interface. Responsible for architecting, designing and implementing software modules for industrial machines. Tested and debugged systems, and installed them at user facilities and then provided ongoing software support.

March 1996 to September 1997: Applied Optronics Corp. Member of engineering team, designing electronic circuitry for medical laser systems that employed proprietary diode laser modules. Responsible for creating new circuitry to improve system performance, and documenting the engineering data for compliance with FDA regulations. Developed and implemented computerized purchasing system to enhance company productivity.

June 1988 to March 1996: Auxilec Inc: Assisted chief engineer in modifying existing designs of commercial aircraft power generation systems, for new aircraft. Developed test equipment and test procedures for company staff to repair and troubleshoot existing line of products. Trained a staff of technicians on troubleshooting down to component level. Was a founding member of the electronic repair team as an FAA certified Lead Technician.

Education

• Bachelor of Science, Electrical Engineering, Rutgers College of Engineering: May 1988

• Masters of Computer Science, New Jersey Institute of Technology: May 2014. Completed all required 30 credits with a GPA of 3.5. Projects include Java based networked peer-to-peer publishing system, web based chat room using PHP and MySQL, and a scheduling system using JavaScript, AJAX, PHP and MySQL.

• Courses in C++ language programming and AutoCAD drafting, Middlesex County College, 1994-1995.