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Greg Green

Overview

Software engineer and researcher. Excellent communication and leadership skills. Combined depth in programming and mechanical engineering. Experienced in leading technical team. Expert in C++, Python on Windows and Unix. Experienced Java programmer. Hands-on problem solver in a wide cross-section of technologies.

Education

2007 University of Washington, M.S. Computer Science
1984 University of Washington, B.S. Mechanical Engineering

Professional Experience

1989 – 2020 The Boeing Company Seattle, WA

Advanced Computing Technologist – Mathematics and Computing Technology Group

- Member of select group of software researchers and mathematicians at the Boeing company.
- Prototyped advanced system's engineering tool to associate design data for complex avionics in different domains, ie Design, Test, Analysis. Client server application using Ice middleware built on top of an Object-Oriented database (Objectivity)
- Developer on Easy5 analysis software, plus produced software that generated control software to load onto a real-time evaluation board that was sold to Ford Motor company for advanced engine controls evaluation and test. Also ported the codebase (millions of lines of C++ and Fortran) to Linux.
- Senior developer on advanced internal CAD system used for research and production.
- Worked on numerous projects to develop requirements for new computer systems for Design and Manufacturing.
- Prototyped numerous systems to transition various technologies into production use. Languages used include prolog, lisp, python, tcl, c/c++, java, matlab.
Technologies used: CORBA, SOAP, Ice, Web Services, OODB, SQL, UML.

Senior Software Engineer – Boeing Information Technology

- Led team of up to 30 developers to architect, develop, and push to production a Systems Engineering tool to define system architecture of the 787. System was also used on two Satellite programs based in El Segundo. Worked with internal and external Avionics and Test engineers to provide the digital interface for all black-boxes on the aircraft. System was also used for authoritative input to the real-time routing and latency calculation of digital/analog messages on the

airplane. The code was written in c++, python, tcl (~400,000 loc) and was built on top of the Slate COTS software.

- Responsible for Enterprise support of Slate in the Boeing Company, plus setting and influencing project goals to support system's engineering in Boeing. Responsible for allocating resources, prototyping, data modeling, and integration of our work with other Enterprise groups. Position requires innovation and applied research to support the preceding goals as this is a new area of development at Boeing and elsewhere.
- Invented GUI for graphical creation of digital messages in numerous protocols, A664, A429, A629, CAN, etc. This is now used to author the thousands of messages used in the 787 software by all companies involved in this design.
- Primary author of metadata model for system's engineering data that is spreading into wide-use throughout the various Business units of the company. Developed with input from a wide variety of sources in the company.
- Developed the release, change control, and production upgrade processes used on this project.

Lead Structural Designer – Boeing Defense and Space Systems

- Lead engineer for complex machined and electron-beam welded primary structure on the F-22 program
- Part of team that developed first process for CATIA 3D model definition in lieu of traditional CAD drawings.
- Lead engineer for traditional sheet metal and machined structure on the B-2 program.
- Extensive experience in shop floor techniques and problem solving.
- Expert in ANSI Y14.5 tolerancing and tolerance analysis.
- Extensive experience with CADAM, AutoCAD, NCAD, CATIA software.

1984 – 1989 The Department of the Navy Bremerton, WA

Lead Nuclear Engineer – Puget Sound Naval Shipyard

- Responsible for overhauling/testing submarine, and surface ship primary nuclear reactor systems. The work included complex hydraulic, air-driven, and electrical systems.
- Designer/implementer of several computing projects in C, Basic and 8088 assembly language. Projects included a serial port driver, automated testing and data-collection tools, finite-element analysis programs, material-ordering database and console frontend.
- Wrote spreadsheet analysis programs and some lisp customizations to Auto CAD.

Professional Associations

- Licensed Professional Engineer in Washington State – 1989
- Member of Experimental Aircraft Association (EAA)

Hardware

I have developed software for Intel 80x86 and the following microcontrollers: Motorola 68HC11, and the Atmel AVR family.

Operating Systems

I have extensive experience with Linux, Unix systems, and Microsoft DOS through Windows systems.