

SCOTT T. GRAY

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Current Employment

Principal Software Engineer, *Rockwell Collins*, Cedar Rapids, Iowa (10/08 – present)

- Next Generation Cryptographic unit for use in Rockwell's Core Radio and other applications and programs requiring a crypto unit.
- Common Range Instrumentation Integration System (CRIIS) and Rapid Prototype Initiative (RPI) datalink Lead Software Architect. Responsible for design, implementation and integration of networking layers of testing range waveform.
- Software Systems Technical Lead in Software Communications Architecture (SCA) software defined radio (SDR) project FlexNet-4.
- Software Architect of SCA SDR programs.

Previous Employment

Systems Software Consultant, *Donatech Corporation*, Fairfield, Iowa, on assignment at Rockwell-Collins, Cedar Rapids, Iowa (3/08 – 9/08)

- Software Systems Technical Lead for FlexNet-4.
- Software Architect of SCA SDR programs.

Senior Software Developer, *Laridian, Inc.*, Cedar Rapids, Iowa (7/03 – 3/08)

- Designed and constructed Windows desktop application using shared code libraries from Laridian's mobile products.
- Implemented light-weight database layer using the SQLite engine for Microsoft Windows Mobile platform.
- Developed cross-platform graphics display library for Palm, Pocket PC and Microsoft SmartPhone PDA devices.
- Created a Microsoft Smartphone application using shared code libraries from Laridian's mobile products.
- Design and implementation of synchronization engine which supports multiple desktop and PDA data sources, including the Windows, iPhone, PocketPC and Palm OS platforms.

Chief Software Architect, *Donatech Corporation*, Fairfield, Iowa, on assignment at Rockwell-Collins, Cedar Rapids, Iowa (1/03 – 6/03)

- Provided vision and direction for modernization of software techniques and practices in military avionics. Concepts and technologies such as object-oriented programming, design patterns, and real-time CORBA were introduced and encouraged.
- Assisted in bid effort for next generation defense system based on the Linux OS.
- Presented overviews of Software Architecture Documentation, CORBA for real-time systems, and Alternative Development Methodologies.

Software Consultant, *Donatech Corporation*, Fairfield, Iowa, on assignment at Rockwell-Collins, Cedar Rapids, Iowa (10/98 – 1/03)

- Designed and implemented DO-178B compliant C module, which was based on the Python prototype of a deterministic analysis of LAN traffic and buffer sizing.
- Collaborated with a mathematics specialist and produced a prototype tool for deterministic analysis of an avionics LAN. Written in Python, the application produced detailed reports of network delay, jitter and buffer sizes.
- Prototyped avionics LAN configuration table validator in Python. The tool featured XML configuration of the table parser and plug-in validation modules.

- Project Engineer and architect of a project bringing advanced diagnostics technology to systems engineers. Implemented CORBA server in Java and thin-clients in Java and Python. Lead the sub-contract team through design and implementation of the main C++ client.
- Developed rules-based diagnostic engine for In Flight Entertainment system in C++.
- Designed and implemented XML-based user interface specification system for the Swing library in Java. This system could then be dropped into a Swing application to allow for UI modification without recompilation.
- Created a desktop logic design and simulation application in C++. This served as the basis for an extensible component-based application to address Enterprise wide logic development needs.

Trainer, Independent Contractor, *Productivity Point International*, Cedar Rapids, Iowa. (1/97 – 6/02)

- Developed and presented SOAP and Web Services in Java courseware.
- Prepared and delivered XML and Java courses.
- Presented Rational Unified Process course.
- Delivered C++ portion of Accelerated Windows Programming course.

Consultant, *Information Systems USA*, Cedar Rapids, Iowa. (5/99 – 1/01)

- Database schema and report designer.
- Participated in investigation of web-based applications for potential new products.

Adjunct Instructor, *Kirkwood Community College*, Cedar Rapids, Iowa (1/97 – 5/97)

- Taught credit course in C programming.

Senior Programmer, *Parsons Technology*, Hiawatha, Iowa (7/96 – 9/98)

- Lead designer and developer of commercial product, coordinating five developers and four editors.
- Participation in full product life-cycle development of three Win32 shrink-wrap applications.
- Design work using Object Oriented methods and design patterns.
- Implementation using Visual C++, MFC, and STL for Windows 95/NT platforms.
- Specification and construction of large-scale repository for multimedia elements of Windows multimedia application.
- Creation of high-efficiency compression and retrieval methods.
- Object Oriented analysis and database schema design. Experience with both DAO/Jet and c-tree database engines.

Consultant, *Association of Free Lutheran Congregations Headquarters*, Minneapolis, Minnesota (9/88 – 5/92)

- Conducted PC/LAN training for all departments on network.
- Programmed and deployed student transcript storage and reporting system in C++. This application was later enhanced to handle faculty management, course and class allocation, student lists for classes and allocation of facilities.

Presentations

- *Introduction to the Rational Unified Process for Software Development*, IEEE MSC 2000
- *Advancing the State of Diagnostic Reasoning Using Model-Based Systems Engineering Tools*, IEEE MSC 2000

Systems, Technologies, Languages

C++/C, C++11, Python, Visual C++, C#, Real time software development, Embedded software development, Desktop software, PDA/Mobile software development, SOAP, Web Services, Standard Template Library (STL), Standard C++ Library, Boost, XML, CORBA, Win32 API, wxPython (wxWindows), Incremental Development, Iterative Development, Test Driven Development, Rational Unified Process (RUP), UML 2.0, Rational Rose, Rhapsody, Enterprise Architect, ClearCase, Visual SourceSafe, Subversion, Palm OS, Windows Mobile, Windows Smartphone, Windows XP, Windows Vista, Windows 7, Linux

Education

4 Year Graduate Degree in Theology – Association Free Lutheran Theological Seminary

Biblical Studies Certificate – Association Free Lutheran Bible School
B.S. in Music Education – Indiana University of Pennsylvania