

Andrew C. Martin

<http://andrewcmartin.com>

TECHNICAL SKILLS

Languages & Frameworks: Java, C#, C, C++, Python, Perl, Bash, TCL, SQL, HTML, CSS, PHP, JavaScript, jQuery, Ajax, WSDL, REST, OGC, SOA, XML, XSLT, XSD, KML, Swing, JMS, JDBC, Django, Flask, .NET, QT, GTK+, GD

Development Tools & Databases: Eclipse, Ant, Tomcat, JUnit, NetBeans, GCC, GDB, Clang, Visual Studio, Solaris Studio, UML, Rational Rose, GNU Make, Purify, Quantify, PostgreSQL, PostGIS, MySQL, SQL Server, SQLite, Spatialite

Cloud & Virtualization: Amazon Web Services (AWS/C2S), OpenStack, Heroku, KVM, VirtualBox, Docker

Version Control Systems: Git, Mercurial, Subversion, CVS, ClearCase

PROFESSIONAL EXPERIENCE

Software Engineer, May 2013 to Present

Rincon Research Corporation, Aurora, CO

- Developed cloud interface to legacy signal processing system, to better handle dynamic scaling of mission critical processing components. Built using Python, AWS/C2S, OpenStack and ActiveMQ.
- Developed metrics management system used to perform real-time mission benefit assessment of intelligent tasking simulations. Built using C++, ZeroMQ and MySQL.
- Wrote scripts in Python, Perl, and Bash to automate test and configuration management tasks.
- Lead a team in the design, development and analysis of a distributed real-time signal processing system.
- Responsible for maintaining schedule, and performing requirements sell-off.
- Lead author for cloud migration proposal, which resulted in a contract award.

Software Engineer, February 2009 to May 2013

SAIC, Aurora, CO

- Developed middleware infrastructure in C++ for the GOPS distributed signal processing system.
- Lead engineer for an R&D project to develop Java web services for a Multi-INT data processing architecture.
- Developed 3D geospatial analysis tools using Java, Swing and NASA WorldWind.
- Designed and developed real-time signal and GMTI change detection algorithms in C++ and Java.
- Maintained, enhanced, and documented GUI signal analysis applications written in Java and C++.
- Developed scripts in Perl, Python and Bash to orchestrate regression testing and build infrastructure.
- Migrated the organization's C++ software baseline to a 64-bit architecture.
- Managed a team of eight in addition to software engineering duties.

Software Engineer, January 2004 to February 2009

The Boeing Company, Aurora, CO

- Developed web services for multi-level security infrastructure in Java and Axis2.
- Developed GUI frontends to legacy Fortran applications in Java/C#, resulting in significantly improved usability and functionality.
- Responsible for the buildup and administration of Red Hat Enterprise Linux (RHEL) lab infrastructure.
- Created a real-time satellite tasking prototype utilizing Microsoft .NET, web services, and STK.
- Maintained, enhanced, and documented database-driven telemetry processing applications written in C++/MFC.
- Designed and developed a graphical C#/Windows Forms application to facilitate analysis of spacecraft attitudes.
- Designed BPEL processes to orchestrate web services in a SOA-based operational concept.
- Developed scripts to automate system administration tasks.
- Responsible for managing the organization's revision control system (Subversion).
- Mentored developers on object-oriented design, agile development methodologies, and software development best practices.

Software Developer, May 2001 to December 2003

Colorado Climate Center, Fort Collins, CO

- Designed and developed a web-based system to dynamically store, process, and graph data from dozens of weather stations throughout Colorado.
- Migrated existing operations from a flat file system to a relational database (MySQL).
- Worked closely with clients to implement compatibility and feature requests.

OTHER EXPERIENCE

- Developed a containerized reminder microservice using Python, Flask, RabbitMQ, Docker, SQLite, and AWS. Code available on GitHub (<https://git.io/vNkxN>).
- Created a Google Maps-based route plotting website where users have interactively created over 8 million waypoints in the last 11 years. Developed with PHP, Ajax, and MySQL.
- Developed a board game for the Palm OS and Java platforms. Received over 50,000 downloads.

EDUCATION

University of Denver, Denver, CO

Master of Business Administration (MBA), June 2008

Colorado State University, Fort Collins, CO

B.S. Degree in Computer Science, December 2003

SECURITY CLEARANCE

Active TS/SCI clearance with current SSBI (January 16, 2015)