

Rod Morehead

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Summary of Qualifications

- Extensive software development experience.
- Broad technical knowledge combined with a deep understanding.
- Excellent in maximizing value for employer via “big picture” awareness and high productivity.
- Superb interpersonal, written, and verbal communication with technical and non-technical.

Technologies

Languages– Python, Java, Javascript/HTML Web Apps, C/C++, XML, Perl, C#, ASP, VBScript, Visual Basic, and Lisp.

Development Platforms –UNIX/Linux, Mac OS X, and Windows.

Architectures – Cloud/Web (Python Twisted, Django, HTTP, Java Spring Boot, Javascript, HTML), Language Bridging (Go, C/C++, Python ctypes, Java JNI, Lisp).

Methodologies/Approaches – Agile/Extreme Programming as Project Manager/Coach and Engineer, Architecture Design Patterns, and Refactoring.

Work Experience

July 2005 – Present

Cisco Systems

Provider of network and application-related hardware and software (Richardson, Texas)

Architect/Software Engineer

8/20 – present: Cisco Webex Calling Public APIs and Bulk CSV

- Architect and technical leader for Java Spring Boot-based Cloud Webex Calling Public APIs and Bulk CSV.

11/19 – 8/20: Cisco Communication Project

- Architect and technical leader of Go language-based communication clients for embedded and mobile.

01/13 – 11/19: Cisco Desktop Phone Team

- Solely responsible for the architecture of a new automation interface for desktop phone software.
- Collaborated on architecture, design, and implementation of desktop phone software in C/C++.
- Technical leader for phone provisioning, configuration, and Web UI in Agile Scrum environment.
- Led training for other phone teams in Java, C/C++, and Python in unit testing and test automation frameworks usage and test strategy and design.
- Ported host-side automation into Docker and developed "transparent" Docker wrapper.

05/11 – 01/13: Cisco HCS Project

- Responsible for architecture, design, and team lead of Python-based complete automation of installation and configuration of the suite of IBM Tivoli Netcool products across multiple VMs.
- Solely responsible for architecture, design, and implementation of Python django based Service Assurance Events, Use Cases, and traps database with read-only and administrative Web UIs.

12/06 - 05/11: Cisco Comet Project

- Lead for architecture and design, as well as the team lead on C language-based implementation of Comet Execution Engine: a "VM" for running configuration commands against runtime API.
- Solely responsible for architecture, design, and implementation of Fake (Mock) Comet Runtime API, Experimental Comet CLI, Comet Runtime API bridge into Python using Python ctypes and C.
- Solely responsible for architecture, design, and Python language-based implementation of Comet Execution Engine Web-Based Debugger prototype using Python Twisted and Dojo Dijit Javascript library.

7/05 - 12/06: Cisco OAM Project

- Solely responsible for architecture, design, and implementation of logging subsystem.

- Responsible for assisting other groups in transitioning XML schema and UI to the new configuration environment.
- Solely responsible for enhancing Java-based automated documentation tool.

May 2003 – July 2005

Magic Solutions Remedy/BMC Software

Provider of Business Service Management software and services (Dallas, Texas)

Architect

Responsible for architecting, refactoring, enhancing, and evolving a complex web-based client-server application and related tools:

- Responsible for communication and infrastructure improvement including the development wiki and Exim/GNU Mailman-based mailing lists to foster effective communication and improve culture.
- Introduced and implemented new concepts for the development team including refactoring, XP-style Unit Tests, and technical debt avoidance.
- Designed, estimated, documented, and created processes and recipes for numerous development tasks.
- Refactored numerous parts of the codebase and developed associated JUnit, CppUnit, and Python programmer tests.
- Key member of the team that developed applicant tests, interviewed and mentored US and India-based software development staff.

February 2002 – May 2003

epicRealm Inc.

Provider of dynamic web caching appliances (Richardson, Texas)

Senior Software Engineer

Responsible for architecting and implementing web-based client-server applications and related tools:

Solely responsible for web GUI architecture.

Responsible for research, architecture, and design of new features and functionality for caching appliance.

- Lead developer on web GUI including Perl backend, client/server tiering via XML, and Javascript/HTML browser client.
- Solely responsible for Web GUI automated unit testing (Python PyUnit, Javascript JUnit, and Perl Test::Unit).

November 2001 – February 2002 Insider Marketing & Creative

Provider of marketing strategy and creative solutions (Dallas, Texas)

Contractor

- Responsible for implementing web-based client-server Python/Zope/SQL application and related tools.
- Responsible for the design and implementation of a dynamic content tool for use by Insider and clients.
- Automated end-to-end processing of trade show website including extensive SQL schema development, SQL queries, Python scripts, Zope DTML pages, client-side JavaScript, and email conduits.
- Solely responsible for automating regression testing (Python PyUnit).

May 2001 – November 2001

CoreIntellect

Provider of market intelligence and current awareness information (Rockwall, Texas)

Senior Software Engineer

Responsible for rearchitecting and refactoring web-based client-server Java applications and related tools:

- Independently refactored GUI application and ported code to multiple platforms making time-consuming operations more than 10x faster (Java JFC/Swing).
- Rearchitected server-side object cache improving system stability and greatly increasing concurrent user access (Java Servlets/JSP).
- Redesigned XML DTD and associated code reducing network bandwidth needed between application tiers by 30% (XML, Java SAX).
- Solely responsible for reengineering and automating build and regression test process (Java ANT).

September 2000 – May 2001

epicRealm Inc.

Provider of worldwide Internet infrastructure services through web caching technology (Richardson, Texas).

Development Manager

Responsible for entire web-based configuration application used internally and by epicRealm customers worldwide. Managed 6-10 direct reports and acted as group liaison with the software test group, upper management, and customer support.

Successfully managed group through several key issues:

- Wrote white paper on technical issues affecting the company with current product and engaged upper management in discussions on how to address these issues.
- Spearheaded short-term customer experience improvement process by applying development resources to critical

customer issues resulting in increased customer satisfaction and system stability.

- Personally prototyped and optimized new XML configuration data upload (XML, Java SAX/JDBC/RMI).
- Co-rearchitected Java servlet infrastructure to eliminate redundant code and improve performance (Java Servlets/JDBC).
- Solely responsible for the optimization of critical portions of website code resulting in a 60x performance increase for some operations (Java Servlets/JDBC).

February 2000 – September 2000

Emcom Inc.

Hi-tech R&D-oriented engineering firm serving WAN performance needs of government and major corporations (Plano, Texas)

Senior Software Engineer

Solely responsible for the development of a graphing framework for visualizing network performance:

- Architected designed, built, and debugged framework (Visual C++).
- Converted slow Visual Basic charting scripts to Visual C++ framework.
- Integrated third-party graphing toolkits (Olectra Chart 6.0 and gchart).
- Ported to Linux.

July 1999 – February 2000: Contractor - MCI WorldCom

Responsible for the development of enhancements and bug fixes for Client/Server Frame Relay order entry, provisioning, and billing system:

- Lead developer on billing system module (UNIX, C++).
- Corrected numerous issues across a large codebase (Windows/Unix, C++, Java).
- Identified and enhanced issues relating to client-server communication (Windows/Unix, C++, Java JDBC, CORBA).

May 1994 – July 1999

Interleaf Inc.

Provider of document creation, distribution, and management software and services (Waltham, MA)

Member of Technical Staff

As a member of the corporate development group completed the following UNIX and Win32 projects:

6/98–7/99: Interleaf 7

- Solely responsible for the design and implementation of cross-platform file library used throughout Interleaf 7's 4 million line codebase to transparently share files between Windows and UNIX (C++).
- Developed embedded web server allowing additional integration of Interleaf 7 (C++/Lisp, HTTP).
- Enhanced cross-platform (Windows/UNIX) drag-and-drop libraries (C++).

6/97 – 6/98: Interleaf Liaison 2.1:

Solely responsible for modifications that converted application to a 3-tiered Java RMI architecture allowing the development of applets and lightweight Java client extensions to Liaison:

- Liaison project development lead.
- Enhanced Liaison source code generation tool (OO Design, Python, C++).
- Independently developed RMI support for Liaison API (Java RMI, C++).
- Enhanced RDM server (C++).

6/96 – 6/97: Interleaf Liaison 2.0:

Solely responsible for the creation of the Liaison source code generation tool, Liaison Java API, and enhancements to the Liaison RDM Server:

- Proposed and authored a new Liaison source code generation tool (OO Design, Python, C++).
- Led creation of Java, Python, and C++ language APIs (Java JNI, Python, C++).
- Solely responsible for enhancing and supporting the Liaison RDM server (C++).

5/94 – 6/96: Interleaf Liaison 1.0 – 1.2:

Created and enhanced the Liaison RDM server:

- Responsible for full lifecycle development from design through multiple production releases (C++).
- Developed prototype for web integration with RDM, that became a commercial product (C++, CGI, Apache).
- Added multilingual support (Unicode).
- Collaborated with team to implement and enhance core Liaison functionality (C++).

November 1993 – April 1994

Sterling Commerce

Sterling Commerce powers global e-business communities with E-Marketplace Solutions, E-Business Integration Solutions and E-Business Consulting.

Level 3 Support Engineer

Responsible for increasing the stability of Connect:Direct e-commerce product (C++, UNIX).

- Significantly improved the stability of the April 1994 software release (C++).
- Implemented consistent build process and customer patch release process.
- Received seven commendations from direct supervisor for outstanding performance in resolving customer issues.

May 1991 – November 1993: Staff Consultant - Interleaf, Inc.

Responsible for writing proposals, bidding, designing, implementing, and supporting custom software solutions (C, Lisp, UNIX, Windows).

Successfully completed the following projects:

- Blue Cross Blue Shield of Illinois Benefit Booklet System– Co-designed and had sole responsibility for implementing the system which decreased booklet production time by 75%(Object Oriented Design, Lisp).
- General Motors Automobile Owners Manual System – Solely responsible for the successful completion of the project which converted SGML into production-ready manuals (SGML, C, Lisp).
- General Motors Automobile Parts MicroFiche Layout System – Solely responsible for the successful completion of a project which created a production-ready MicroFiche layout for parts reference (Lisp).

June 1990 – May 1991

Various

Various intern programming and research positions with Texas Instruments and Ericsson Network Systems.

Education

B.A. Computer Science and Psychology, 1991 Austin College, Sherman Texas

Other Projects

August 2014 – August 2020: Adjunct Professor - Northlake College

Developed course and sole instructor for Automation using Python course. Instructor for Linux 1 and Linux 2 courses.

June 1997 – March 1998: Contract Developer - iMagic Online

Responsible for the port of Internet-based Warbirds WW II Flight Simulator to Macintosh. (MacOS, C++, GUI).

References and recommendations available upon request and online at <http://rmore.net/references>