Russ Weeks, B. Sc.

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Contact me via e-mail if you need my mailing address or phone number.

Summary

Creative and detail-oriented Software Developer experienced in Network Management, Distributed Storage and High Performance Computing. Holds a healthy respect for process, but a focus on Getting Things Done. A team player with strong communication, problem solving and organizational skills.

Technical Skills

11 years of professional software development experience has produced expertise in the following areas:

- Java, Objective-C, C, Python
- Bash, Ksh, Sed, Awk, Grep
- Enterprise Java/EJB/Struts
- Multithreading/Concurrency

- L2/L1 Ethernet
- MPLS, MPLS-TP
- TCP-IP, UDP
- HTTP

- Source Control (CVS, SVN, Git)
- MySQL, Oracle, Postgres
- Linux (Ubuntu, SuSE)
- Solaris 10/OpenSolaris

Accomplishments

- Developed a scalable, distributed storage algorithm capable of persisting 100's of gigabytes of data with high reliability. This algorithm formed the technical basis of a presentation to potential venture capital investors.
- Addressed security and scalability concerns for military-grade supercomputers. The prompt resolution of these concerns allowed a multi-million dollar purchasing agreement to proceed.
- On my own initiative, wrote a code generator for a legacy Java RPC infrastructure. This tool frequently saves developers from writing 1000's of lines of redundant, error-prone RPC code.

Patents Pending

- <u>Method for Reserving Bandwidth for Versioned Network Services</u> (USPTO 13/049,828)
  This invention describes a method whereby a Network Management System, which can manage multiple versions of a network service, reserves the minimal amount of bandwidth necessary to guarantee that any version of the service can be activated at any time.

- <u>Method for Assigning a Service Template to Existing Network Configuration</u> (Jan. 2012)
  This invention describes a method whereby a Network Management System, upon discovering a network service that was designed and activated outside of the NMS, can assign a "best-fit" template to the service. This assignment is important to categorize the service and potentially auto-assign a service-level agreement.

Employment History

Senior Software Developer   **Ericsson**   **2/10 - Present**
- As technical lead of the MPLS-TP network management team, designed and built a routing algorithm in Java to find disjoint paths through an arbitrarily-configured network of up to 100,000 Ethernet switches. This algorithm allowed the network management group to avoid a costly partnership with a 3rd-party vendor.
- As team lead for the IPT-NMS server team, coordinated the efforts of a 4-person team in Vancouver with similar teams in China, Italy, Sweden and India. Managed the end-to-end development of the MPLS-TP and Service Discovery features, from high-level design to customer beta testing.
- Responsibilities included: high-level design, system management, requirements gathering, software development, design and code reviews, domain expertise in packet-switched networking.

Senior Software Developer   **PolarBlue Systems**   **5/08 - 1/10**
- Designed and developed the user interface components for the ReachMyFile iPhone application. Provided instruction and mentoring to other developers in the use of Objective-C and the iPhone SDK.
- On my own initiative, implemented a multi-threaded Web Server for the iPhone, written from scratch in Objective-C to augment the ReachMyFile application.
- Prototyped multiple Distributed Hash Table and Erasure Code algorithms to determine suitability for a next-generation storage product. Summarized these algorithms and reported my conclusions to senior management.
- Responsibilities included: Algorithm research and prototyping, requirements gathering, high-level software design, detailed software design and implementation, technical writing, statistical analysis, providing summarized reports directly to the CTO.

Software Developer   **Redback Networks/Ericsson**   **5/06 - 5/08**
- Implemented distributed, scalable, fault-tolerant event dispatch system to deliver events to remote clients. This allowed our web services API to scale to 1000's of events per second per client.
- Integrated 3rd party management system with in-house Network Management software stack. This required co-ordinating distributed transactions across 3 software components: a J2EE application, a legacy Java server framework and a real-time database running on a carrier-grade router.
- Responsibilities included: end-to-end feature work from requirements gathering to code maintenance, build file maintenance, shell scripting, software tool development, US Department of Commerce export compliance.

Software Developer   **Cray Supercomputers**   **3/05 - 3/06**
- Designed and implemented optimizations to reduce boot time for XD1 compute nodes. This reduced the XML-RPC load on the XD1 master node by approximately 20% on system boot, resulting in improved scalability.
- Performed troubleshooting and post-mortem analysis for XD1 systems at US Department of Defense research laboratories.
- Responsibilities included: Linux administration and code maintenance, J2EE design and implementation, requirements gathering, interfacing with 3rd-level support staff.

Software Developer   **WebCT Educational Technologies**   **8/02 - 3/05**
- Designed and developed Web Services server interface and client applications in Java and C#
- Provided instruction and support for 3rd party "partner" developers. Projects included Web Services client applications and custom authentication modules.
- Responsibilities included: Maintained relationships with customers and partner developers, developed automated test tools, provided sample code for WebCT's Web Services API.

Software Specialist   **TELUS Enterprise Solutions**   **1/02 - 8/02**
- Developed and maintained J2EE application components within IBM's WebSphere MQ Environment.
- Designed and developed Java interface for Remedy database API.
- Responsibilities included: managing code deployment schedules, native interface development, application server support for development and test teams.

Principal   **Razorwire Software Design Services**   **6/00 - 4/02**
- Implemented Java security and Cryptography technology in Java-based smartcard solution for a customer loyalty points program.
- Managed projects for a number of different clients including HVAC Systems and Solutions, Global Consumer Technologies and World Internet Broadcasting Network.
- Developed a real-time usage monitor and chat system for a video webcasting corporation.
- Responsibilities included: project management, time tracking, technical writing, requirements gathering, project reporting.

Java Developer (Co-op)   **Kazootek Technologies**   **1/00 - 8/00**
- Responsibilities included: software development, meeting project delivery deadlines, managing multiple tasks simultaneously, supervising new software developers, summarizing technical subjects for management reports and user manuals.

Help Desk Analyst (Co-op)   **Chevron Canada Ltd.**   **4/98-12/98**
- Responsibilities included: Hardware/Software troubleshooting, technical writing, web page design.

Education / Training

Bachelor of Science, Co-operative Education, 2001
Faculty of Applied Sciences
Simon Fraser University, British Columbia

St. John's Ambulance, Vancouver BC
Occupation First Aid Level 2 Certificate, 2003
Emergency First Aid - Industry 2009