John Saxton

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▬▬▬ Experience

June 2012– present **Software Engineer**, *Symantec*, Roseville, MN.
I work on the deduplication engine used by NetBackup, PureDisk, and BackupExec.
- Most of my work is done in C, C++, and PHP.
- Lead developer for an unannounced PureDisk project.
- NetBackup and PureDisk maintenance and customer support escalations.
- Worked with the Office of the CTO to help prototype a web-based troubleshooting utility for NetBackup 5200 series appliances.
- Developed an internal Python application to run automated performance testing.

May 2008– June 2012 **Senior Software Engineer**, *Open Systems International*, Medina, MN.
OSI provides automation solutions for the electric utility industry. My work at OSI primarily focused on writing the cross-platform APIs and frameworks that all of OSI's 100+ products were built upon.
- 90% of my work was in C, the other 10% was in C#, Java, Python, and various scripting languages.
- Proposed, designed, and implemented an asymmetric intersite synchronization framework which is currently being used for substation automation. Complex data synchronization issues arise when trying to synchronize data between a central control server and many distributed substations, each of which only have visibility into a subset of the system. My framework allowed developers to write a simple plugin to synchronize their data without having to worry about the complexities of this architecture. The modular architecutre also made it very easy for OSI to meet the unique data synchronization requirements of several different customers.
- OSI often wrote custom products that periodically executed a RDBMS query and wrote the results to OSI's proprietary DBMS. I proposed, designed, and implemented a generic interface that eliminated the need for these custom products.
- Lead developer of OSI's Messaging framework, which was responsible for secure communication between all OSI servers and clients.
- Lead developer for a number of server-side processes that handled authentication, permissions, licensing, database access, process monitoring, and system monitoring.
- Led an initiative to encrypt all legacy communications using SSH tunnels instead of developing our own custom solution, then leveraged an existing OSI product to monitor the health of the tunnels. This saved an estimated four man-months while delivering a technically superior solution.
- Implemented a centralized repository of third party libraries that all OSI products could link against. Supported seven platforms (Windows XP, Windows 2003, 32 bit AIX 5.2, 64 bit AIX 5.3, RHEL4/5, Tru64, Solaris 8/10).
- Played a large role in making Python the official scripting language of OSI. I successfully pushed to have Python installed on all future customer systems, and I also wrote a Python developer's guide.
- Ported several products to Solaris 8/10.
- Initial responsibilities included maintaining a cross-platform systems-level API, custom DBMS, and a number of server-side applications.
- Proposed and implemented a formal code review process using ReviewBoard.
- Mentored three new hires.

Feb 2005–	**Student IT Worker**, *University of Minnesota*, Minneapolis, MN.
May 2008	○ Wrote a number of web applications using PHP and MSSQL with minimal supervision.
	○ Performed periodic maintenance on Unix servers.
	○ Provided periodic technical support for faculty and graduate students.

Education

2004–2008	**Bachelor of Computer Engineering**, *University of Minnesota*, Minneapolis, MN.

Technical Skills

Programming Languages	C, C++, PHP, Python, SQL, bash, ksh, Assembly, C#, Java, Perl, LaTeX
Operating Systems	Windows, Linux (RHEL, SLES, Debian, Ubuntu), AIX, HP-UX, Solaris, Tru64
Concepts	Multithreading, Networking, Cross-Platform Development, Unit Testing, Static Analysis, Computer Security
Software	VMWare, VirtualBox, CVS, SVN, git, Visual Studio, vim, cscope, gdb, valgrind, Wireshark, nmon, perfmon

Awards and Achievements

2011	**Promotion**, *Open Systems International*, Medina, MN.
	Promoted to Senior Software Engineer
2006	**Academic distinction**, *University of Minnesota*, Minneapolis, MN.
	Completed the lower division IT honors program