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## ► Software Engineer Qualifications

- Programming language expertise:  
Used in production software: C, C#, Go, Perl, Ruby, sh/ksh/bash, Javascript, Erlang, T-SQL  
Used in personal software: Python, C++, Java
- DBMS / KV store expertise:  
Riak, MongoDB, Redis, MS SQL Server, PostgreSQL, MySQL
- Operating system expertise:  
Linux (Debian & derivatives, Arch), FreeBSD, OpenBSD, Microsoft Windows
- Other representative expertise:  
Source control: Git, SVN, CVS  
Build systems: make, CruiseControl, buildbot, Travis CI  
Text editing: vim  
Network: TCP/IP, Ethernet, pf firewall  
Misc: Node.js, vSphere/ESXi, Vagrant/VirtualBox, Hyper-V, Apache httpd, nginx, haproxy
- Extensive experience translating business and functional designs for complex projects into workable technical designs for other engineers to follow.
- Teamwork and problem-solving skills obtained from experience in music field, ability to deal with wide range of personalities.
- Personal interest in development best practices, knowledge of upcoming technology and trends and their applications, immersion in news of daily advances in IT.

## ► Information Technology/Software Engineer Experience

### **Basho Technologies** (basho.com)

#### **Senior Software Engineer, 01/15 - Current (Riak, Erlang, C#, Go, Node.js, Ruby, Python, Java, PHP)**

Develops software to facilitate integrating Riak end-user applications with the Riak database. TCP/IP socket programming using asynchronous techniques used to build modern client libraries in C#, Javascript (Node.js), and Go. Also contributes to libraries written in Java, Python and Ruby, as well as to Riak in the form of code and code reviews, benchmarking, and bug fixes. See [https://github.com/basho/riak\\_api/pull/119](https://github.com/basho/riak_api/pull/119) for an example of a Riak change that impacted all client libraries.

#### **Client Services Engineer, 08/13 - 01/15 (Linux, FreeBSD, Riak, Erlang, sh/bash, Ruby)**

Provide advanced technical support for the Riak distributed database. Support includes detailed system statistic and log analysis, inductive reasoning, and in-depth knowledge of both the product and the platforms on which it runs (Linux, FreeBSD and Solaris / Solaris clones). Implement customer projects on a custom basis using scripts and tools such as Chef or Ansible. Develop internal tooling to support Client Services and the Riak product. Interact directly with customers on a regular basis to solidify strong relationship with Basho.

### **Tier 3 (CenturyLink Cloud)** (tier3.com / centurylinkcloud.com)

#### **Software Engineer, 08/11 - 08/13 (C#, Ruby, ASP.NET MVC, VMWare, Linux)**

Developed features for product website written in ASP.NET MVC which allows for the provisioning, management, billing and organization of large numbers of VMs running on vSphere/ESXi. Automated the deployment of virtual machines on VMWare vSphere/ESXi. Built MS Windows and ASP.NET compatibility into large-scale open source Ruby / .NET application - [Iron Foundry](#). Brought open-source PaaS Cloud Foundry into Tier 3's product portfolio as Web Fabric. Developed administrative scripts in sh and Powershell for Linux and Windows setup. Prototyped .NET and Windows support into VMWare's open-source BOSH tool. Implemented automated, online drive resize for all Linux distributions, including root drive - see "Partitions - A Thing Of The Past" series at <http://www.bakken.io>

### **Next IT** (nextit.com)

#### **Software Engineer, 07/07 - 07/11 (C#, NHibernate, WPF, WCF, Windows Forms)**

Lead development team in redesign and rewrite of client-facing workflow application based on a 3-tier design consisting of WCF services, Windows Forms / WPF UI, and NHibernate data access. Emphasis is on testable, maintainable software built from discrete, interoperable components. Code developed using test-driven development (TDD) via NUnit. Application has successfully shipped and is in use by several customers. Migrated Next IT's Windows deployment technology to the WiX MSI build system and designed unified web application deployment code. Also developed products using ASP.NET MVC and jQuery.

## **Pathology Associates Medical Labs** (paml.com)

### **Software Engineer, 06/06 - 07/07 (C, C#, gSOAP, AIX, ASMX, Web Forms, D3 PICK)**

- UNIX programming and administration on AIX.
- Development on D3 PICK billing system in PICK Basic and C.
- Application, ASP.NET and web services programming in C#.
- Web services programming using gSOAP in C.
- Participated in design of enterprise system to replace the PICK billing system.
- Responsible for integration of Initiate EMPI system into PAML's heterogenous environment.

## **Getronics** (getronics.com / compucom.com)

### **Software Engineer II, 4/05 - 6/06**

#### **Getronics Product Support (C, make, C#, Win32 GDI, Win32)**

Provided single point of support, maintenance and enhancement for the Mosaic OA Central Data Server database, a relational database supporting a subset of ANSI SQL. The large codebase is entirely in C. Provided support and development for Getronics' GlobalFS installations throughout the world. GlobalFS is an N-tier C# banking application. Projects included:

- Cleanup and modernization of the very old (15 years) CDS source tree.
- A port of the CDS software to the Linux/BSD environment (Berkeley sockets) from the current UnixWare environment (XTI networking).
- GlobalFS table reporting mechanism that combines XML output, XSL and CSS stylesheets to create a well-formatted HTML page for client viewing.
- Application of contemporary object-oriented programming techniques to the existing set of perl programs used to build the GlobalFS database.

### **Software Engineer II/Systems Analyst, 4/01 - 4/05**

#### **CitiFinancial Applications Group (C, Perl, ksh)**

Developed detailed technical specs for customer projects, including projects that involve Mosaic OA (one of Getronics' banking environments), C or Perl programming (among others). Managed small groups of programmers in implementation. Implemented complex solutions independently should the project require it. Projects typically involved several programming languages and environments working together.

### **Technical Trainer, 7/00 - 4/01**

#### **Training Department (C, UNIX, Perl, ksh, OFB)**

Implement custom training materials for internal/external clients, including courses on the following:

- UNIX use and programming (specifically SCO UnixWare)
- Perl Programming/Advanced Perl Programming
- Banking Software - Maestro Application. Mosaic OA Programming (Olivetti Financial Basic/OFB)
- Mosaic OA Central Data Server (SQL relational database)
- Getronics FAP4 Teller application (CDS database) and Loan Application (MS SQL Server)

## **► Computer Science and Music Studies**

UNIVERSITY OF ROCHESTER, Rochester, NY (Phi Beta Kappa member)

Bachelor of Arts Magna Cum Laude, Computer Science, December, 1998.

EASTMAN SCHOOL OF MUSIC, Rochester, NY

Bachelor of Music, Performance (Bassoon), December, 1998.

2nd bassoon and contrabassoon with the Spokane Symphony orchestra.

## **References:**

Brian Sparrow  
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