



# JARON SAMPSON

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## ABOUT ME

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I do DevOps in AWS. I spent 15 years as a full-stack developer, from coding C++ for Win32 apps to developing high-availability, high-volume Java webapps and SOA APIs.

As my operations teams gained virtualization capabilities, I requested more and more of these virtual resources for development sandboxes and proof-of-concepts. (I believe in the Lean concept of failing fast and early.) With the emergence of IaaS like AWS, I finally had the direct access to the virtual resources I needed to engineer complete solutions. My fellow coders began to ask me to setup cloud resources for them as well, and I was happy to enable faster development.

Around the same time I realized my frustration as a developer involved the challenge all dev teams face - building products that consistently meet client expectations. I also noticed my friends on the ops side were using the cloud like the in-house virtualization infrastructure. This didn't feel right to me, so I started applying my development skills to automating the cloud.

Today I am a happy DevOps engineer. I understand my clients' expectations because my clients are developers. I have a talent for helping teams turn software that "runs on my machine" into production system architectures. My DevOps approach is efficient and manageable with an emphasis on automation. I write almost all of my infrastructure-as-code, and apply my software development experience and methodology to create reliable, consistent infrastructure.

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## EXPERIENCE

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### **Boston Digital Experience Center (Humana, Inc.)**

Lead DevOps Engineer (IT Applications Consultant) 11/2013-11/2015

- Built Humana's first HIPAA compliant systems in the public cloud (AWS). These systems supported products built on a built on a javascript/redis/rabbitmq/MongoDB stack
- All production systems and lower environments are created from the same infrastructure-as-code base. These are CloudFormation templates, Python tooling, and Chef. All VPC, EC2, Route53, IAM and S3 resources are defined in this codebase, version controlled with git, and peer reviewed with pull requests
- Created a Rundeck system enabling developers to do on-demand software deployments to lower environments. It also serves as a platform for other automation components and provides excellent DevOps activity visibility and comprehension for the entire team

- Developed a technique to “transfuse” data from one online MongoDB replica-set to another, which facilitated blue/green infrastructure turns requiring only about one minute of production downtime. The downtime is required only to allow DNS TTLs to expire, a constraint intrinsic to the DNS system and external to our systems
- Designed an AWS system architecture for the company’s second HIPAA compliant AWS systems now under development. This product is similar to the first, but uses a micro service architecture, Redshift and SnapLogic analytics components, a Neo4J graphing database, and an HA ELK system for log analysis
- Collaborated with data scientists and developers to create a HA MongoDB replica set suitable for operation in AWS EC2, featuring five nodes spread across three availability zones
- Developed techniques to allow production systems to meet an AWS BAA for HIPAA compliance. This involved solving issues related to encryption-at-rest, encryption-in-flight, and dedicated tenancy for the development team’s chosen technologies

**Healthrageous, Inc. (Acquired by Humana)**

Lead DevOps Engineer (Contractor) 6/2013-9/2013

- Supported VP of Development in handling all maintenance and upgrades of the company’s development and operational infrastructure for a product built on a javascript/redis/rabbitmq/MongoDB stack
- Designed and implemented the HA AWS system architecture for the development team’s product
- Created Jenkins Continuous Integration system

**NameMedia, Inc. (Acquired by GoDaddy)**

Principal Software Engineer 9/2007-3/2013

- Full-stack Java/T-SQL developer
- Designed and implemented company’s first continuous integration and delivery system for PHP and Java applications using Jenkins, Python, ANT, Artifactory, and Gradle

**Akaza Research, LLC (Now OpenClinica, LLC)**

Software Engineer 9/2005-8/2007

- Full-stack Java/postgreSQL developer

**Independent Consultant**

Software Engineer 3/2001-Present

- Dozens of projects using C++, php/MySQL, and Java technologies

**Verge Wireless Systems, Inc.**

Systems Engineer 10/2000-3/2001

- C/C++ developer for WinCE platform

## **Gettuit.com, Inc.**

Software Engineer 2/2000-10/2000

- C++ developer for Win32 platform

## **PersonaLogo, LLC (Acquired by Gettuit.com)**

Software Engineer 2/2000-10/2000

- C++ developer for Win32 platform

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## **EDUCATION**

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Bachelor of Science, Computer Science, The Evergreen State College, 1995-1999, 2003

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## **AWARDS AND ACCOMPLISHMENTS**

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- Awarded the 2007 caBIG™ Embodying the Vision Award by the NIH for work on bioinformatics systems for cancer research.
- Inventor of US Patent #6,661,904 and International Patent H04L009/00; H04L009/32 A method and system for automated electronic conveyance of hidden data.

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## **PRAISE**

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*"Jaron's devops contribution to the projects we collaborated on was critical to our success. Jaron's depth of knowledge and professional approach to devops is way beyond what I have experienced before or since."*

- Rick Myers Full Stack Developer at Humana, Inc.

*"We needed an infrastructure, with security suitable for the healthcare industry, but in new and uncharted waters... the public cloud. Jaron delivered with an innovative and reliable solution that passed muster within the larger enterprise, was the foundation of our app and a home run for the company."*

- Dan Kalin Full Stack & Mobile Developer at Humana, Inc.

"Jaron singlehandedly was able to bring our infrastructure from epoch of steam engine to propulsion jet. Automation is his religion, cloud is his church, getting things done his preaching. First full stack he orchestrated for us, suffered from NONE critical failure in 2 years of production deployment. Jaron operates as perfect interface between development, business, analytics and security departments, utilizing his technological expertise and personal skillset to align and execute on unified organizational goals. If devops were martial art, Bruce Lee would make a great student of Jaron's"

- Michal Roguski Data Scientist at Humana, Inc.