

# FRED SMITH

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## Devops Engineer

DevOps engineer with 17 years of experience in technical team leadership, development, system design, implementation and hands-on support of complex, robust, scalable systems based on Linux and Open Source technologies.

## Technical Skills

**Operating Systems:** Debian, Ubuntu, RHEL/CentOS/EC2 Linux

**Automation:** Ansible, Terraform, Chef, Puppet.

**Languages:** Python, Ruby, Bash, PHP, Perl

**Applications:** Django, Git, GPFS, Graphite, Grafana, InfluxDB, Jenkins, KVM, Logstash, Memcached, Nagios, New Relic, Nginx, Postfix, Rails, RabbitMQ, Redis, Tomcat

**Virtualization Platforms:** Amazon Web Services, KVM, Docker

**Database and Computing Platforms:** Grid Engine, Cloudera Hadoop (Map Reduce, HDFS, Hbase), Clustered MySQL, MongoDB, Splunk.

## Education

**Bachelor of Science in Computer Science**  
**Rensselaer Polytechnic Institute – Troy, NY**

**2003**

## Professional Experience

**DevOps Engineer**  
**EdX - Cambridge, MA**

**2014-Present**

*Quality education for everyone, everywhere.*

Worked on a Development Operations team to support and encourage DevOps culture and methodologies for a rapidly growing educational software platform.

## Notable Accomplishments

- Architected hosted education platform for businesses and universities that resulted in millions in sustainable bookings for EdX.
- Designed and implemented tools used by Developers to deliver software to users quickly, including continuous deployment pipelines, infrastructure as code frameworks, and monitoring and alerting best practices.
- Effectively scaled a microservice platform to serve a global audience with millions of active users, by leveraging Amazon Web Services and Cloudflare CDN.

## **Sr. DevOps Engineer**

### **Get Satisfaction – San Francisco, CA**

**2013-2014**

*Customer Communities for social support, Social Marketing and Customer Feedback*

Managed systems orchestration and AWS hosted, dynamically scalable infrastructure supporting a platform for hundreds of hosted customer support communities with over 10 million daily visitors.

#### **Notable Accomplishments**

- Maintained 99.999% availability of a complex open source based platform through the use of multiple AWS Availability Zones and a real-time DR site.
- Worked on a software automation framework based on Chef and Ironfan to manage software components, instances and services in Amazon Web Services.
- Integrated internal monitoring with cloud services to quickly and reliably provide feedback to operations team about issues.
- Contributed various performance and security improvements to the company's Ruby on Rails v3 application.

## **Head of High Performance Computing Operations**

### **Nuance – Burlington, MA**

**2011-2013**

*Provider of voice and language solutions for businesses and consumers globally*

Managed global operations team deploying and supporting over 15,000 compute cores, hundreds of applications, and petabytes of high performance storage.

#### **Notable Accomplishments**

- Led automation initiatives to improve deployment consistency across heterogeneous hardware and complex applications.
- Designed and implemented operational best practices in a growing environment.
- Modernized cluster monitoring, analysis and automated response with Graphite, Logstash and Ruby.
- Managed 10,000 sqft datacenter, Fiber channel SAN, 160Gbit core network
- Achieved minimal downtime and improved performance through use of monitoring, diverse redundancy and incident response.

## **Sr. Systems Engineer**

### **Nokia – Burlington, MA**

**2010-2011**

*World's leading mobile phone supplier.*

Created team of four to manage site operations, release management and customer integration. Utilized open source software to create infrastructure for a high availability database application.

#### **Notable Accomplishments**

- Developed a software automation framework based on Puppet and Cobbler to manage hundreds of systems world-wide.
- Designed and Implemented Cloudera Hadoop cluster for production model generation and Business Analytics.

## **IT Manager - Sr. Systems Administrator**

### **Black Duck Software, Inc. – Waltham, MA**

**2005-2010**

*Provider of strategy, products and services for enabling enterprise scale adoption of free and open source software.*

Led staff in management of 24x7 IT environment. Scaled software as a service offering in a fast paced / VC funded company.

#### **Notable Accomplishments**

- Implemented foundational business technologies, including messaging, file sharing, knowledge sharing, time tracking, customer support tracking, sales pipeline management and remote access.
- Created disaster recovery policies that were realized in critical situations.
- Maintained high availability on mission critical applications.
- Automated administration tasks allowing minimal IT staff growth.

## **Systems Administrator**

**2004-2005**

### **CORESense Inc. – Saratoga Springs, NY**

*Integrated retail management solution combining point of sale, ecommerce website, order management, merchandising and CRM solutions.*

Maintained production e-commerce websites for over 150 businesses, requiring high availability, security and performance.

## **Mobile and Wireless Developer**

**2003-2004**

### **CMA Consulting – Latham, NY**

*Application systems solutions and information technology consulting services for government and large companies.*

Researched and developed applications for handheld devices running PalmOS, PocketPC and Windows Tablet operating systems

## **Linux Operations Manager**

**2002-2003**

### **Connected Kids. – Troy, NY**

*An online information system for young people in the City of Troy and Rensselaer County.*

Developed and directed the implementation of thin client computer labs based on Debian Linux and Knoppix.

## **Founder**

**1999-2003**

### **Divided Sky Internet – Troy, NY**

*Web Services Provider / Technology Consulting*

Founder of web application and hosting services company. Hands free hosting model that allowed clients to run websites and applications on leased servers.