

Objective

I am looking for a role that lets me leverage my heavy operations experience in a more development-focused role. I would like an opportunity to increase my experience with software engineering and development in cloud environments and software-as-a-service architectures. I am interested in roles either local to New Hampshire or open to primarily remote employees.

Work Experience

4/2017- Oracle America, Inc. – **Consulting Member of Technical Staff**

Present *Dyn Acquisition for Oracle's Cloud Infrastructure (OCI) Platform*

Manchester, NH

- Contributed to operational architecture projects involving Kubernetes, Oracle Cloud Infrastructure, Public Key Infrastructure, Oracle Linux, and global Internet routing.
- Designed and implemented network and system architecture designs to incorporate cloud deployment strategies with internet routing resources available only outside traditional cloud environments.
- Managed the turn-down of some legacy systems without interruption to other co-dependent systems on a different lifecycle.
- Operationalized a prototype worldwide performance metrics collection system into an automated, documented, and monitored system.
- Assisted our platform operations teams with building components of a shared Kubernetes cluster environment. This involved integration with Dex for OpenID, FluentD for centralized logging, and Terraform for automation.
- Learned about deploying technologies on the Oracle Cloud Infrastructure architecture.
- Designed architectures for global CDN deployments utilizing redundant, monitored CDN origin systems, global DNS traffic management profiles, and reliable object storage backends.
- Migrated legacy Dyn company PKI operations to using Oracle corporate PKI systems.
- Experimented with just-in-time implementations of Let's Encrypt PKI that could work at scale for arbitrary domain names.

4/2010- Dyn, Inc. – **Senior Systems Administrator**

4/2017 *Internet Infrastructure-as-a-Service, Uptime is the Bottom Line*

Manchester, NH

- FreeBSD, OpenBSD, and Linux system administration, design, and deployment.
- Managed industry-leading unicast and anycast DNS infrastructures utilizing BIND, Unbound, and more.
- Operated and maintained worldwide unicast and anycast dual-stack network infrastructure utilizing Juniper, Cisco, and Quagga routing and switching devices, and BGP, OSPF, and BFD routing protocols.
- Deployed and configured server and network management tools like Graphite, CFEngine, Nagios, Cacti, and Munin.
- Participated in 24x7x365 on-call rotation team responsible for quick response to system events, attacks on our infrastructure, and the internet as a whole.
- Documented systems, best practices, training materials, and procedures used by the engineering and operations teams. Trained new additions to our operations team.

6/2006- OASIS Open – **Senior Systems Administrator**

4/2010 *Open Data Standards Development, Encouragement*

Billerica, MA

- Linux administration included BIND, Apache, Xen virtual servers, LDAP, MySQL.
- OpenBSD administration including pf firewalls, routing, OpenVPN and IPsec VPN access.
- Created and implemented Network Operations department procedures, documentation, and responsibilities.
- Implemented 24x7 monitoring of key infrastructure, servers, and services with Nagios monitoring and custom scripting.
- Architected network infrastructure comprising of multiple locations, subnets, security domains, and wireless segments.
- Built SSL-secured mail server utilizing Cyrus IMAP, Sieve filtering, SASL and LDAP authentication, Exim SMTP, webmail access, spam/virus scanning with Amavis, ClamAV and SpamAssassin.
- Expanded network capabilities and hardware availability by utilizing Xen virtual servers in the datacenter to combine essential services on lower-utilization servers to isolated, highly-specific system installations, thereby freeing up dedicated machines for more resource-intensive applications.
- Implemented, deployed, and developed for the Drupal content management system, Knowledge Tree document management system, mnoGoSearch search engine, and several other high-profile FOSS applications.

12/2005- PubSub Concepts, Inc. - **Network Administrator**

6/2006 *Dynamic Content Monitoring, Filtering, and Delivery*

Nashua, NH

- Linux administration included BIND, FTP, Apache, INN/NNTP, Xen virtual servers, LDAP, MySQL.

- OpenBSD administration including pf firewalls, routing, OpenVPN and IPsec VPN access.
- Created and implemented Network Operations department procedures, documentation, and responsibilities.
- Implemented 24x7 monitoring of key infrastructure, servers, and PubSub proprietary software with Nagios monitoring and custom scripting.
- Architected network infrastructure comprising of multiple locations, subnets, security domains, and wireless segments.
- Built SSL-secured mail server utilizing Cyrus IMAP, Sieve filtering, SASL and LDAP authentication, Exim SMTP, webmail access, spam/virus scanning with Amavis, ClamAV and SpamAssassin.
- Expanded network capabilities and hardware availability by utilizing Xen virtual servers in the datacenter to combine essential services on lower-utilization servers to isolated, highly-specific system installations, thereby freeing up dedicated machines for more resource-intensive applications.

1/2005- Gomez, Inc. - **Network Engineer**

12/2005 *Internet Performance Management Services* Lexington, MA

- Part of a team responsible for deploying, managing and monitoring a global network of hundreds of servers in a 24/7/365 environment, utilizing Cisco switches and Netscreen VPN appliances.
- Managed Microsoft technologies including NT/2000/2003, Clustering, Active Directory, Exchange, and SQL.
- Linux administration included BIND DNS servers, FTP, and custom application servers.
- Implemented a collaborative documentation system (TWiki) and a project management portal for organizing the Network Operations Center activities and streamlining efforts.
- Architected a Linux-based high-availability, load-balanced, and scalable FTP cluster integrated into the Active Directory authentication architecture for increased manageability and reliability.

2000- Crooked Chimney Technology Group - **Developer and Network Administrator**

2004 *Information Services for the Music Industry* Manchester, CT

- Built and maintained database and web servers for web hosting, email, and streaming media.
- Developed a custom content management system using PHP, ColdFusion, DHTML, CSS, JavaScript, and XML in a Linux, Apache, and MySQL (LAMP) server environment.
- Migrated proprietary system to open standards for faster, cheaper development, reliability, increased security.
- Launched online artist promotion communities and social network tools, mailing list and contact management service, and several XML web content publishing and distribution tools. Awarded Platinum Album plaque for helping Los Lonely Boys sell >1,000,000 records.
- Administered custom wholesale and retail coffee sales website. Built database and custom shopping cart system using Linux, Apache, MySQL, DHTML, CSS, JavaScript, and ColdFusion Application Server. Conducted customer service responsibilities through email and phone support.

1997- Logo'd Softwear - **IT Coordinator**

2001 *Custom Embroidered and Imprinted Sportswear Retailer* Cheshire, CT

- Implemented and administered a Windows-based network infrastructure for multiple business locations.
- Oversaw the purchase and application of new computer graphics and embroidery technologies.
- Designed an e-commerce store to accommodate the company's custom apparel services.

1996- Greater Vision Computer Services - **Founder and Consultant**

2000 *Computer consulting for local small businesses and residents* Cheshire, CT

- Constructed a custom database application for customer records, billing management, and electronic transmission of insurance claim submissions for a dental office.
- Provided custom individual instruction in various applications on different computer platforms.
- Upgraded and repaired computer systems according to the needs of clients.

Education

Worcester Polytechnic Institute – Computer Science

Bachelor of Science awarded with Distinction in 2003 Worcester, MA

- Designed and programmed a Major Qualifying Project to analyze computer network traffic on and between different subnets of a complex topology with an emphasis on protecting user privacy.
- Worked with a team of three other engineers in Melbourne, Australia to develop and begin the implementation of a five-year strategic business plan for the Fire Services Museum of Victoria.
- Applicable areas of study:

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|-------------------------|-------------------------------|------------------------|
| • Network Communication | • Object-Oriented Programming | • Software Engineering |
| • Operating Systems | • Functional Programming | • Algorithms |

Skills and Interests

- Skilled in network and computer technologies, especially as network security and open source software.

- Extensive experience with Linux, Windows, FreeBSD, OpenBSD, and working knowledge with other Unix systems. Virtual infrastructure experience with Xen and VMWare. Hardware experience with Juniper M/MX/SRX series, Cisco IOS, and Dell, HP, and Compaq servers.
- Proficient in network technologies including IPv4, IPv6, TCP and UDP, firewalls / IPTables / pf, IPsec, OpenVPN, DNS, DHCP, LDAP, SMTP, Apache / HTTP, SSH, SSL/TLS.
- Programming skills : Python, PHP, SQL, Perl, Git, Subversion, BASH, Golang. I can learn new languages very readily.
- Strong written and verbal communication skills. Experience with technical instruction and customer service.
- Other interests: performance automotive motor sports and engineering, audio, and microelectronics.