

Objective

I am looking for a role that lets me leverage my heavy operations experience in a more development-focused role. I can contribute to architecture designs for improving reliability and operational overhead, especially with cloud architecture technologies. I thrive in environments where there is a need to simplify complicated systems and design them to be operated by people. I am interested in roles either local to New Hampshire or open to employees working primarily remotely.

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.
- Redesigned DDoS mitigation toolsets using eBPF for packet filtering under high traffic loads.
- 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 24x7x365 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.

Prior Work Experience (Details available on request)

12/2005- 6/2006	PubSub Concepts, Inc. - Network Administrator <i>Dynamic Content Monitoring, Filtering, and Delivery</i>	Nashua, NH
1/2005- 12/2005	Gomez, Inc. - Network Engineer <i>Internet Performance Management Services</i>	Lexington, MA
2000- 2004	Crooked Chimney Technology Group - Developer, System and Network Administrator <i>Information Services for the Music Industry</i>	Manchester, CT
1997- 2001	Logo'd Softwear - IT Coordinator <i>Custom Embroidered and Imprinted Sportswear Retailer</i>	Cheshire, CT
1996- 2000	Greater Vision Computer Services - Founder and Consultant <i>Computer consulting for local small businesses and residents</i>	Cheshire, CT

Education

Worcester Polytechnic Institute – Computer Science
Bachelor of Science awarded with Distinction in 2003 Worcester, MA

Applicable areas of study:

- 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, FreeBSD, and OpenBSD. Working knowledge of Windows and MacOS. Virtual infrastructure experience with Xen and VMWare. Hardware experience with Juniper M/MX/SRX series and Cisco IOS.
- Cloud experience with Amazon Web Services, Oracle Cloud Infrastructure, and several smaller cloud providers.
- Proficient in network technologies including IPv4, IPv6, TCP and UDP, firewalls / IPTables / pf / eBPF, IPSec, OpenVPN, DNS, DHCP, LDAP, SMTP, Apache / HTTP, SSH, SSL / TLS.
- Programming skills : Python, Golang, SQL, Perl, Ruby, PHP, Git, Subversion, BASH, C/C++. 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, photography, travel, audio engineering / acoustics, and microelectronics.