

Thomas Noonan II

DevOps Engineer

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Summary

DevOps / Software Engineer experienced at integrating disparate applications, developing custom software to meet internal needs, running applications at scale using Docker and configuration management, implementing common backend services supporting production applications, configuring servers and networks, and working with the business to reduce overhead via automation.

Experience Highlights

- Management of large scale deployments in Terraform
- AWS and GCP cloud experience
- Programming and scripting in many languages including Ruby, Python, Bash, and C
- Custom DSLs in Ruby
- Custom APIs in Ruby and Python
- Software testing using RSpec, Python Unittest, and Test Kitchen
- Version control using Git
- Automated builds using Gitlab, Bamboo, Buildkite, and AWS Codebuild
- Automated deployments using Chef, Docker, and Terraform
- Auditable and controllable user self-service models using Git
- Application deployments using Hashicorp Nomad, AWS ECS, and Docker on Linux
- Monitoring using Sensu, Prometheus, Nagios, Riemann, and Grafana
- Centralized logging using Elasticsearch, Sumologic, and AWS CloudWatch
- Configuration management using Terraform, Chef, Puppet, Ansible, and AWS CloudFormation
- Consul, Vault, and AWS ParameterStore configuration and password storage
- Linux system administration and troubleshooting
- Network administration and troubleshooting
- Postgresql and MySQL database experience
- Service provider experience
- Agile development environment experience

Abridged Employment, Education, and Experience History

- **F5 Networks, 2020 to Present:** DevOps Engineer supporting the Silverline Web Application Firewall Product.
 - Designed, implemented, and deployed a sFlow based network intrusion detection system for use within FedRamp deployments.
 - Developed and open sourced a IP layer 3 container mesh network solution for operating non-dynamic server solutions in dynamic environments.
 - Architected and implemented the tagging standard, data gathering, data storage, and data processing components of a tag-based Cost of Goods reporting system.
 - Maintained a large scale AWS deployment composed of hundreds of thousands of Terraform resources across 8 geographic regions.
 - Maintained a suite of DevOps tools for use internally by DevOps engineers.
 - Developed a version control system for containerized tooling running on engineer's workstations.
 - Architected and developed an internal information service used to classify and group assets both in AWS and LibVirt environments.
 - Deployed applications using Docker containers on Nomad clusters.
 - Developed and maintained a library of internal Terraform modules for use across multiple projects.
 - Implemented AWS EIP pooling solutions and use of F5 owned IPs within AWS.
 - Leveraged Prometheus for application monitoring.
 - Developed internal tools to assist with operational issues interacting with etcd, PowerDNS, and authenticating proxies.
 - Implemented a deployment pattern to run ValKey (Redis) in a high-availability configuration in a containerized environment without persistent storage.

- **Tek Systems, contracted to Comcast, 2014 to 2015:** Senior Linux Engineer in the Technology and Product division of Comcast.
 - Administered, maintained, supported, and improved the Video On Demand transcode and distribution services of Comcast Wholesale.
 - Maintained Linux servers running in house developed applications utilizing Tomcat and Oracle.
 - Developed applications in Python and Ruby to solve operational issues faced by the Ops team.
 - Utilized Flask-Restful to implement REST APIs within Python to interconnect applications and provide middle tier services interfacing with MySQL, PostgreSQL, and Oracle databases.
 - Implemented Docker and Puppet based workflows for application deployment allowing for application environment synchronization, simple deployments, and easy application rollback.
 - Standardized server configurations using Puppet.
 - Utilized Agile development practices for both development and operational tasks.
- **RackSpace Hosting, 2012 to 2014:**
 - **DevOps Engineer in the SMB Unit of RackSpace Hosting:** Configured and administered customer environments via Chef configuration management tools.
 - * Developed Chef cookbooks to provide general and extensible application management cookbooks to highly tailored cookbooks to configure a customer’s application.
 - * Utilized continuous integration tools and automated test suites to maintain cookbook code quality.
 - * Collaborated with other engineers and customers on shared code bases using git and GitHub for version control.
 - * Worked with other engineers and management to set code quality standards, best practices, and team procedures.
 - * Provided system administration support to customers with immediate response times to site and server issues.
 - **Enterprise System Administrator in the Enterprise Unit of RackSpace Hosting:** Administered, triaged, and repaired high profile web and database servers hosted at RackSpace.
 - * Configured all operating system aspects of customer servers, including disks, kernel tuning, package management and patching, firewalls, and software configuration.
 - * Troubleshoot servers both in real time and after the fact to determine causes of site outages and performance issues.
 - * Used Python and Bash scripts to characterize server behavior to advise on performance issues.
 - * Advised customers on high availability configurations such as Red Hat Cluster Services, Multi-primary MySQL, load balancing, and horizontal scaling using both dedicated gear and public cloud.
 - * Offered front line support to customers with immediate response times to site and server issues.
- **Randstad Staffing (formerly Spherion Staffing), contracted to Hewlett-Packard 2009 to 2012:** Enterprise Server Technician and System Administrator for HP’s Enterprise Server Lab.
 - Administered, configured, assembled, triaged, and repaired HP’s line of flagship servers.
 - Supported HP’s engineering and firmware teams by maintaining server prototypes, lab infrastructure, and test scripts.
 - Performed hardware level troubleshooting and repair of server prototypes.
 - Administered approximately 50-100 infrastructure servers on both real hardware and virtualized platforms ranging from low visibility test servers to production servers visible to multiple business units within HP.
 - Assisted with network support including general maintenance, outage triage, and firewall configuration.
 - Configured and troubleshoot Fibre Channel and FCoE SANs.
 - Assisted with data center operations and management.
 - Designed and developed a custom IP VPN solution in C to allow cross-site automated design verification and tests of embedded management processors.
- **Iowa State University, 2003-2006:** Worked towards a Bachelors Degree in Computer Engineering. Studied computer programming, electronics, and embedded programming.