Harrison Totty

SENIOR DEVOPS ENGINEER · SOFTWARE PROGRAMMER

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Summary

Current Senior DevOps Engineer within the Production Operations group at Centro. Highly experienced at implementing custom infrastructure solutions within both cloud and on-premises environments. Thrives in seeking solutions within domains not yet encompassed by popular technologies or industry standards.

Work Experience

Centro, Inc. | *Remote*

SENIOR DEVOPS ENGINEER | *Feb 2021 - Present*

- Developed custom operators to simplify deployment of Basis platform environments into Kubernetes.
- Wrote terraform code for managing infrastructure hosted in AWS.
- Implemented serverless data pipelines using AWS Lambda & Step Functions.

Wolfram Research, Inc. | *Champaign, IL*

DEVOPS ENGINEER | *Apr 2018 - Feb 2021*

- Streamlined disaster recovery of Wolfram Cloud user data with end-to-end encrypted backups via backuputil.
- Provisioned bare-metal Kubernetes environments for Wolfram|Alpha utilizing Kubespray, Helm, Rook-Ceph, and Velero.
- Incorporated Hashicorp Vault for secrets management of Kubernetes CI/CD pipelines.
- Implemented infrastructure as code (IaC) standards for on-premises environments by leveraging Puppet and Cobbler.

WEB SYSTEMS ADMINISTRATOR | *Dec 2016 - Apr 2018*

- Developed a templating engine for Apache HTTP Server configurations.
- Collaborated custom log data analysis and reports for Wolfram Cloud in Python and Mathematica.
- Designed Salt configurations for managing internal infrastructure.
- Developed backend code for the Wolfram Cloud Platform in Java.

WEB SYSTEMS INTERN | *Sep 2016 - Dec 2016*

- Implemented new Wolfram kernel features in C/C++.
- Developed a containerized RPM build environment hosted in Apache Marathon/Mesos.

Tallahassee Community College | *Tallahassee, FL*

MATHEMATICS AND TECHNOLOGY TUTOR | *May 2016 - Aug 2016*

- Provided tutoring in topics such as Ordinary Differential Equations and introductory programming courses.

Skills

Amazon Web Services	ALB/ELB, Cloud Formation, EC2, EKS, IAM, Lambda, RDS, Step Functions, Secrets Manager
Containers & Orchestration	Docker, Helm, Kubernetes (managed & unmanaged)
Data Languages	CSV/TSV, INI, JSON/YAML, TOML, XML
Data Science	Jupyter Lab/Notebooks, Mathematica, matplotlib, plotly, sympy
IDEs & Text Editors	GitHub Atom, GNU Emacs, nano, Sublime Text, vi/vim, Visual Studio (Code)
Infrastructure Management	Ansible, Cobbler, Puppet, Saltstack, Hashicorp Terraform, Hashicorp Vault, Velero
LAMP Components	Apache HTTP Server, HAProxy, keepalived, MySQL (Percona XtraDB Cluster), NGINX, Apache Tomcat
Markup Languages	$\LaTeX$, Markdown, Org
Networking Fundamentals	ARP, CIDR, Mikrotik RouterOS, TCP/IP & OSI Model, Ubiquity Unify Controller, VLAN
Operating Systems	Alpine Linux, Arch Linux, Debian (Ubuntu), Gentoo, RHEL (CentOS), Void Linux, Microsoft Windows
Programming Languages	C/C++, C# .NET, Emacs Lisp, groovy, Perl, Python, Rust, Shell Languages
Software Engineering	Bitbucket, git, GitHub, GitLab, Jenkins, JIRA
Systems Administration	chronyd/ntpd, DNS (BIND/Unbound), init (SysVinit/systemd), OpenLDAP, postfix, rsyslog, SSSD, ulimits
Templating Languages	Cheetah, Embedded Ruby, Jinja, Liquid

Education

Tallahassee Community College | *Tallahassee, FL*

ASSOCIATE OF SCIENCE | *Jan 2015 - Jan 2016*

- Graduated honors with 4.0 GPA.