Xander Harris

Principal DevOps Engineer | Staff Software Engineer | Cloud Architect

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Summary

A straight shooter with upper management written all over him.

Skills

Automation

OSS

- Terraform
- Ansible
- Jenkins

Google Cloud

- GDM

AWS

- Cloud Formation

Monitoring

OSS

- Prometheus
- Grafana
- Thanos
- AlertManager
- Loki

MaaS

- NewRelic
- DataDog
- StackDriver
- ServiceNow

Networking

GCP/AWS

- VPCs
- Subnets
- Security Groups
- Firewalls

General

- TCP/IP
- UDP
- E2E Encryption

Databases

Relational Databases

- PostgreSQL
- MariaDB
- MySQL
- MSSQL

NoSQL/Big Data

- MongoDB
- DynamoDB
- Google Big Table
- Google Big Query

Languages

Programming

- Python
- Go (Golang)
- C
- Java
- JavaScript

Scripting

- Shell
- BASH
- PowerShell
- Nix

Markup

- Markdown
- XML
- HTML
- YAML

Orchestration

Platforms

- Bare-metal Kubernetes
- Docker Enterprise
- Container D
- CRI-O

GCP

- GKE (Google Kubernetes Engine)
- GCE (Google Compute Engine)

AWS

- EKS (Elastic Kubernetes Service)
- ECS (Elastic Container Service)
- EC2 (Elastic Compute Cloud)

CI/CD

Build/Delivery

- Jenkins
- GitLab CI
- CircleCI
- ArgoCD
- Travis CI

Quality

- SonarQube
- Code-Climate
- CodeCov

Software Development Life Cycle

Agile

- SCRUM
- Branching Models

Waterfall

- Semantic Versioning
- Release Cycles
- Commit Cycles

Experience

Platonic, Inc - Senior DevOps Engineer (10-2024 – 04-2025)

- Designed and implemented scalable blockchain services.
- Used and improved Ansible playbooks used in the generation of Kubernetes manifests.
- Stood up Elastic Kubernetes Service clusters and Google Compute Engine instances with HCP Terraform, AWS Console, and GCP Console.
- Built and deployed containers to EKS clusters using ECR, GCE, and Docker.
- Deployed custom services written in Go and Haskell to EKS clusters using GCE, Ansible, shell scripting and Helm.
- Converted Kubernetes manifests as generated by Ansible and shell scripts into Helm charts to speed deployment of blockchain networks.
- Was converted to the use of nix for generating consistent development environments across systems, my life will never be the same.

Tools: git, neovim, nix, GitLab CI, Docker, BASH, Go, GCP GKE, Google Compute Engine, AWS S3, AWS EKS, quay.io, PostgreSQL, Terraform, HCP Terraform, Python

SiriusXM, Inc – Staff Software Engineer (04-2024 – 06-2024)

Software Engineering

- Automated documentation processes with existing tools, including GitLab CI/CD, Python, and GitLab Pages.
- Created Python programs to automate and simplify versioning processes while maintaining Semantic Versioning and PEP-440 compliance.
- Supported and advised several development teams on containerization and migration from on premises infrastructure to AWS deployments.

Infrastructure as Code

- Wrote Terraform modules to facilitate transfer of infrastructure from existing Data Centers to AWS accounts in all major environments (dev, qa, staging, prod).
- Used existing tools to produce documentation for existing and new Terraform modules where none existed previously.
- Provided advice to and received requirements from development teams on the most cost-effective use of cloud resources, including deployments to EKS, VPCs, S3, Cognito and Lambda.

TOOLS: vscode, vim, GitLab CI, Docker, BASH, Go, GCP GKE, Compute Engine, Cloud Storage, Networking, Cloud SQL, Terraform, Python, git

Wunderkind, Inc – DevOps Engineer / Software Engineer (09-2021 - 12-2023)

Automation, Integration, Delivery and Operations

- Created and maintained Helm charts that were used to deploy custom and open-source software to ~36 GKE clusters.
- Supported development teams with GitLab CI/CD pipeline templates and pipelines for continuous delivery.
- Contributed to organization-wide metric standards to ensure low cardinality and baseline metrics provided to Prometheus.
- Completed migration from DataDog to Prometheus and Grafana by removing all DataDog-sourced alerts from Grafana.
- Implemented SonarQube static analysis for custom Go and Python projects.
- Developed multi-stage Docker builds to reduce build time and create smaller deployment images.
- Deployed opencost.io across all existing GKE clusters that enabled cost analysis via Prometheus and Grafana.
- Demonstrated usage of the GCP Billing Console to R&D executives.

Infrastructure as Code

- Created Terraform code to deploy or update GKE clusters and node pools to follow organization labeling standards.
- Imported all existing GCP infrastructure into GitLab Terraform State to enable a transition from GDM.
- Migrated infrastructure code from Google Deployment Manager to GitLab CI with Terraform.

Go (Golang) Development and Software Engineering

- Implemented Go metrics for MySQL, enhancing monitoring with real-time database performance insights.
- Developed automated tests in Go for API validation, ensuring high reliability and performance across system components.
- [‘hip’, ’hip’] (array!)

TOOLS: vscode, vim, GitLab CI, Docker, BASH, Go, GCP GKE, Compute Engine, Cloud Storage, Networking, Cloud SQL, Terraform, Python, git

Databricks, Inc – Part-Time Documentation Platform Engineer (11-2020 – 07-2023)

Python Development and Software Engineering

- Automated Python API docs for Databricks Feature Store, streamlining documentation processes and enhancing team efficiency.
- Enhanced PyTest coverage for Databricks docs Python codebase, boosting code reliability and maintainability.

Automation, Integration, Delivery and Operations

- Documented build/test workflows for documentation sites, ensuring consistent, error-free updates and deployments.
- Managed CircleCI pipelines for Databricks docs, ensuring seamless builds/deployments and integrating custom Sphinx extensions.
- Supported technical writers with the use of Sphinx to generate Databricks docs, ensuring quality and consistency in documentation delivery.

TOOLS: vscode, vim, Python, Sphinx, Bazel, CircleCI, git, GitHub, pytest, bash, Docker, YAML, Markdown, rST

Fox Corp – Senior DevOps Engineer – (05-2020 – 07-2021)

Monitoring with NewRelic and DataDog

- Compiled data on New Relic alerts caused by Media Cloud systems for tuning purposes.
- Moved existing New Relic monitoring to DataDog for all Media Cloud services.
- Automated deployment of DataDog agent configuration to Docker services with Jenkins and Ansible.

Automation, Integration, Delivery and Operations

- Improved stability of video and audio transcoding and quality-control production services running on EC2 instances using both Linux and Windows such that outage frequency was reduced from several per day to once or twice per month.
- Participated in a 24/7 on-call rotation to provide incident response and issue resolution for all Media Cloud mission-critical production services.
- Wrote Jenkins pipelines to enable execution and analysis of Python and Java unit tests.
- Created Terraform code to deploy EKS clusters and related ECR repositories in multiple AWS environments.

TOOLS: vscode, vim, Jenkins, Docker EE, RHEL, Alpine Linux, BASH, Python, AWS, Terraform, Terraform Enterprise, Bitbucket, git, Python, New Relic, DataDog

Infor Incorporated – Senior DevOps Engineer – (09-2019 – 05-2020)

Automation, Integration, Delivery, and Operations

- Designed and implemented GitLab CI pipelines for numerous projects across two teams.
- Automated build and deployment of RPMs using Python setuptools, FPM, GitLab CI, Faro and Ansible.
- Developed and deployed several Docker images for use on GitLab runners.

Python Development, Scripting and Software Engineering

- Spearheaded unit testing efforts using pytest and Pester for testing of Python, BASH, and PowerShell code bases.
- Added coverage reporting for numerous Python code bases using pytest-cov.
- Developed BASH and Python implementations of a log monitoring service.

Tools: vscode, vim, GitLab, GitLab CI, GitLab Runner, Docker, CentOS, Alpine Linux, BASH, Python (2 and 3), PowerShell, AWS, SumoLogic, Ansible, Faro

Disney née Fox Media – Senior DevOps Engineer – (12-2018 – 09-2019)

Automation, Integration, Delivery and Operations

- Improved continuous integration, deployment, and delivery.
- Developed multiple continuous delivery pipelines with Jenkins.
- Replicated services and software from Fox Media AWS accounts.
- Implemented deployment of Docker Swarm clusters to AWS with Terraform.
- Deployed monitoring packages such as New Relic, Splunk and Sysdig to all systems managed by the operations team with Ansible.

Tools: atom, vim, Jenkins, Docker, BASH, CentOS, Alpine Linux Python, PowerShell, JavaScript, New Relic, AWS EC*, AWS CloudWatch, Splunk, Ansible, The Update Framework, Sphinx

Infor Incorporated – Senior DevOps Engineer – (06-2018 – 11-2018)

Python Development and Software Engineering

- Updated Step Function and its constituent Lambda functions such that successfully processed events read from a Simple Queue Service queue would be written to a Kinesis stream.
- Added API key authorization to existing API to enable access via an API Gateway to create the CMDB Client API.
- Automated the deployment of DynamoDB tables and previously mentioned Kinesis stream with Faro.
- Wrote Python to acquire statistics and publish them to a Grafana endpoint.
- Implemented GitLab Continuous Integration for testing and deployment.

Gahan Corporation – Director of Technology – (05-2016 – 12-2023)

Technology

- Managed gahan-corporation.com mail services using Postfix with Courier (IMAP) then migrating to Dovecot with Ansible, Docker, AWS ECS, and AWS Route53.
- An SQL query walks into a bar, walks up to two tables and says, ‘do you mind if I join you?

Clients

CSI – Principal DevOps Engineer / Principal Python Engineer

- Automated management of development, staging, and production Odoo environments, as well as PostgreSQL servers and databases with Ansible and Docker.
- Designed and deployed CI/CD system with Jenkins on Linode which enabled automated testing of Python and PostgreSQL with PyTest, Ansible, and Docker.
- Developed Odoo Enterprise Modules with Python, PostgreSQL, and SQLAlchemy that required extreme reduction of cyclomatic complexity, complete rewrites to comply with PEP8, in addition to a far greater number of bug fixes than was ever accounted for.
- Discovered mission critical inconsistencies in accounting and inventory data which was causing valuation errors more than one million dollars using Odoo, PostgreSQL, Python, and SQLAlchemy.

Tools: vim, BASH, AWS EC2, AWS S3, NGINX, Jenkins, Ansible, Docker, HTML, CSS, PostgreSQL, Sphinx, Odoo ERP, GitHub, Linode

Abiogenix, Incorporated – Principal DevOps Engineer

- Deployed, managed, and automated configuration of Atlassian suite (JIRA, Bitbucket, Confluence) with Amazon EC2, Amazon ECS, Ansible, Docker, and Ubuntu.
- Deployed and maintained mail services for my-ubox.com with, Postfix Courier (IMAP), Ansible, Amazon ECS, and Docker.
- Administered and automated maintenance of Odoo ERP servers (development and production) with Ansible, Python, Docker, Amazon ECS and PostgreSQL.
- Trained team members on proper use of git and gitflow to manage branching and deployment to production.
- Implemented push-to-deploy on Abiogenix web repositories to allow developers to deploy to production without using ssh.

Tools: vim, BASH, AWS EC2, S3, Route53, IAM, ECS, Ansible, Docker, Stripe, Python, Django, git, Bitbucket, JIRA, Confluence, Tomcat, Apache2

Network of One – DevOps Engineer

- Configured, deployed, and provided instruction for a CRM system using Ansible, BASH, and AWS EC2.
- Developed automated distribution of public keys to EC2 instances based on user groups with AWS EC2, AWS IAM, Python, BASH and Ansible.
- Automated configuration of EC2 instances with Ansible and BASH.

TOOLS: vim, BASH, Ansible, Python, AWS EC2, AWS IAM, NGINX, Docker, IBM DB2 AWS RDS, PostgreSQL

CAA – DevOps Engineer / Lead Python Developer (09-2015 – 04-2016)

Automation, Integration, Delivery and Operations

- Implemented CI/CD for an internal project which was a year behind schedule to enable the developers to deliver bug fixes and new features daily with Jenkins, Ansible, Python, Web2Py, and Ansible Tower.
- Managed and monitored cloud infrastructure of roughly 30 EC2 instances using Ansible, Ansible Tower, BASH, CentOS, Ubuntu, and New Relic.
- Alerted stakeholders to failing jobs in Ansible Tower or non-functional infrastructure with New Relic, PagerDuty, Python, and Ansible.

Python Development and Software Engineering

- Trained and guided WorkDay migration team in the use of Python, Pandas and JupyterHub through completion of the project.

TOOLS: vim, BASH, Ansible, Ansible Tower, Python, AWS EC2, NGINX, uWSGI, Python, Web2Py, Jenkins, Docker, Ubuntu, CentOS, JupyterHub, git, GitHub, MySQL, Slack

Toyota R&D – DevOps Engineer / Lead Python Developer – (11-2014 – 07-2015)

Automation, Integration, Delivery and Operations

- Automated deployment of Customer 360 services to reduce time to deploy from several weeks to less than an hour with Ansible, BASH, Java, Ant, Maven, Tomcat, and Scala Build Tool.
- Managed configuration and maintenance of Customer 360 cloud infrastructure consisting of roughly 10 Red Hat Linux EC2 instances using Ansible, BASH, and Python.
- Designed, deployed, and implemented automated tests and deployment of Customer 360 code written in Java, Scala, and Python with Ansible, BASH, Ant, Maven, and Jenkins.
- Supported a team of 25 developers with Jenkins CI, Bitbucket, and Ansible to ensure they were able to release on time.

Python Development and Software Engineering

- Provided instruction on the use of git, gitflow, Bitbucket, and best practices for commits and merges to Customer 360 developers after gaining consensus and approval of Customer 360 management with an A3 presentation.
- Refactored and developed web scraping software using ScraPY, Python, and Ansible.
- Provided instruction on compliance to team of remote Python developers.
- Participated in sprint planning and review cycle with Customer 360 team of 25 developers.

TOOLS: vim, BASH, Ansible, Jenkins, Python, Java, Ant, Maven, Scala, Tomcat, SBT, git, AWS EC2, CentOS, Bitbucket, JIRA, REST, SCRUM, gitflow, ScraPY