Barry Walker

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Profile

DevOps/SRE/Software engineer with 13 years of infrastructure automation experience and over 20 years of software development experience. I have been using AWS since it was just S3 and have deployed production workloads on everything from bare EC2 instances, to Elastic Beanstalk & Ops Works to full-blown Kubernetes clusters. My automation tools of choice are Terraform, Kubernetes, Helm and Bash.

Experience

Rocket Mortgage, Remote - Sep 2020 - Present
Senior Systems Engineer

Rocket Mortgage is the largest retail lender in the country.

- I work with the product teams to build the infrastructure and deployment pipelines that they need to get their products deployed to AWS. Currently I work in the Client Communications & Engagement group, which has very high visibility. My team is responsible for the quickenloans.com and rocketmortgage.com landing pages.

- Built the initial version of the Global Preference Center, which enables customers to manage their contact preferences across the Family of Companies.

- Volunteered every year for the team that manages the systems during the SuperBowl. This group keeps the systems running smoothly during the company's many SuperBowl advertising spots.

ZeroNorth, Boston, MA (acquired by Harness) - Feb 2017 - Sep 2020
Senior Software Architect

ZeroNorth was a security automation and orchestration platform that enabled companies to introduce security into every portion of their SDLC from code commit to application delivery.

- Fully integrated DataDog into all aspects of our platform to gain full observability. This included many custom log processing pipelines.

- Built Terraform scripts from the ground up to deploy 15 Python/NodeJS micro-services into Mesosphere DC/OS running on Amazon AWS.

- Converted the platform fully from DC/OS to Kubernetes using Helm as our package manager, and Terraform as the infrastructure provisioner. Drastically simplified a full platform deployment to just a handful of 'make' commands.

- Built a Packer script to package up the entirety of our platform to run on microk8s (Kubernetes built for appliances) inside of a VMWare OVA. This was to enable on-premise deployments for larger customers.

- Completely stood up a 3 node ELK cluster to ingest metrics and logs from all of our platform deployments.

- Installed and managed our Jenkins build server which includes 8 build pipelines across 80+ GitHub repositories.

- Built the first version of our platform's integration agent which allows customers to scan their artifacts as part of their build pipeline, and fail the build if vulnerabilities are found.

- Configured the Kubernetes horizontal pod autoscaler and the cluster autoscaler in all of our environments to allow full autoscaling.

Autodesk, Boston, MA - Jun 2012 - Feb 2017
Senior Software Engineer

Autodesk makes software for people who make things. They build world-class products which are used across many industries. I came to Autodesk through the acquisition of Vela Systems.

- Continued to add features to BIM 360 Field as a Ruby on Rails engineer until 2013.

- Took over SRE responsibility in 2013. The product was deployed in AWS using Capistrano, and CM was done with Chef.

Vela Systems, Burlington, MA (acquired by Autodesk) - Feb 2008 - Jun 2012
Senior Software Engineer

Vela Systems built applications to modernize construction job sites by using purpose built mobile applications. They started off writing applications that ran on Windows Tablets, but shifted to applications running on Apple iPads. They were acquired by Autodesk in June of 2012.

- Key member of the team that built the Vela Field Manager Ruby on Rails web application. This was a field management application for construction that would be rebranded as BIM 360 Field after the Autodesk acquisition.

- Developed key pieces of the VFM RoR web app including reporting system interfaces and mobile REST API.

- Part of a 2 man team that built the first several versions of the VFM mobile application running on the iPad using Objective-C. My responsibility was device-to-backend communication with REST APIs and managing storage on the device using SQLite.

- Implemented the first versions of the VFM reporting system which ran Jasper Reports Server.

Self Employeed - Dec 2015 - Present
AWS/Kubernetes/Terraform Consultant

Assisted the following companies with lift-and-shift deployments, containerization of existing applications, or deployment of cloud-native applications:

- Equip Health: Automated their serverless infrastructure for their next-gen platform using Terraform and Serverless framework.

- Autodesk: Led the effort to containerize their BIM 360 Ops product. It was migrated from AWS OpsWorks.

- BuildingEngines: Performed a complete lift-and-shift of their legacy application from RackSpace to AWS. Also built EKS infrastructure for their newer cloud-native products using Terraform and Helm. Deployments are done using Bitbucket Pipelines.

- Polis: They came out of the Tech Stars incubator and needed help provisioning their infrastructure. I helped them build out their infrastructure and build pipeline.

- Tenant Technologies: I helped them migrate 5 PHP applications from an on-premise data center into AWS. While we did that, I showed them how to take advantage of autoscaling and auto-healing. They deploy today using AWS Elastic Beanstalk.

Open Source Projects

terraform-aws-rds-scheduler

A custom Terraform module that you can use to schedule on and off times for your RDS instances/clusters.

Registry : https://registry.terraform.io/modules/barryw/rds-scheduler/aws/latest
Github : https://github.com/barryw/terraform-aws-rds-scheduler

terraform-aws-zookeeper

A custom Terraform module that you can use to build a Zookeeper ensemble.

Registry : https://registry.terraform.io/modules/barryw/zookeeper/aws/latest
Github : https://github.com/barryw/terraform-aws-zookeeper

terraform-aws-rds-asg

A custom Terraform module that you can use to turn your RDS instances/clusters on and off based on the size of an AWS Autoscaling Group.

Registry : https://registry.terraform.io/modules/barryw/rds-asg/aws/latest
Github : https://github.com/barryw/terraform-aws-rds-asg