Mathew Fleisch

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A senior devops engineer with over fifteen years of professional full-stack experience, specializing in automation and tools development. Passionate about stable pipelines, infrastructure as code, security and agile development.

PROFESSIONAL EXPERIENCE

Workday | Senior Infrastructure Engineer | February 2021 – Present

The "Scylla" team at Workday maintains a platform for automating the deployment of the Workday SaaS on Kubernetes clusters in AWS, GCP and on-prem (Terraform + ArgoCD + FluxCD). My team maintains a number of custom built Kubernetes operators for service teams to provision cloud resources, like s3 buckets and managed databases in each region. We also fortified our container-build-pipelines (including custom kubernetes control plane containers) for FedRAMP certification, by implementing a GitOps driven method of patching base image security vulnerabilities; automatically building hundreds of containers on a weekly basis, whether or not there are functional code changes.

Sysdig | Senior Infrastructure Engineer | February 2020 – 2021

Sysdig has a multi-cloud, multi-region SaaS CNCF application, as well as an on-prem option for businesses to monitor and secure Kubernetes environments. Focusing on developer tools and productivity, I upgraded and stabilized third-party CI/CD tools (Artifactory & Jenkins) to run in Kubernetes, rather than bare-metal ec2 instances, and introduced self-hosted Github-Action runners in Kubernetes, to carry out continuous integration jobs (Terraform & container-builds), using GitOps principles.

Eaze | Senior Infrastructure Engineer | August 2019 – January 2020

While on the infrastructure team, we built reusable Terraform to replace the manually created dev/stage/prod environments. This allowed us to also create on-demand environments for the developers to have their own personal sandbox, to test new code. This work helped pave the way for a migration from everything deployed on ec2 instances to containers via kubernetes/helm.

Eaze | Infrastructure Engineer | March 2018 – August 2019

I had been writing tools for other engineers, while on the back-end team at Eaze, and made the transition to the infrastructure team shortly after joining. In that time I created a load testing tool, a local development environment in Docker, and an open-source ChatOps bot bashbot

Apple | Full Stack Developer | May 2017 – March 2018

I was hired to work in the marketing department to maintain a sunsetting web application that was being rebuilt by another team. I made modifications to make the application more stable, secure and added logging for debugging purposes. I assisted with Docker, Ansible and Jenkins maintenance.

Hitachi America | Javascript Developer | February 2017 – May 2017

Hitachi America R&D needed a user-interface for their IoT analytics platform, to visualize data coming from heavy machinery in the field, with the goal of predicting maintenance issues. I wrote a library using NodeJS to allow the data-scientists to ingest data into a central visualization NodeRed user-interface.

Apple | Full Stack Developer | September 2015 – October 2016

The Global Finance department at Apple created and maintained internal websites, to help facilitate secure communication and document sharing. The small team of developers primarily used LAMP Stack CodeIgniter, with some NodeJS/Grunt/Gulp/Sass optimization, for most projects, and Drupal CMS.

United Business Media (UBM) | Back-End Web Developer | November 2011 - 2015

UBM was the parent company of conferences Black Hat and The Game Developers Conference. I developed an application to allow conference attendees to view the speaker schedule and save a personal itinerary from the available conference sessions.

The Buck Institute for Research on Aging | Staff Programmer | June 2009 - 2012

Working with bioinformaticians gave me exposure to big data, automation pipelines and creating user interfaces. I created web-interfaces to enter large lists of genes, and various reports are displayed, based on research done at the Buck Institute.
(http://www.ncbi.nlm.nih.gov/pubmed/23409969, http://www.ncbi.nlm.nih.gov/pubmed/22706384)