

Billy Fisher

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Summary

- Staff-level DevOps & Platform Engineer with 20+ years across cloud-native, enterprise, and startups.
- Deep expertise in CI/CD modernization, Internal Developer Platforms (IDPs), and GitOps at scale.
- Proven leadership at companies like Mighty, Nike, Lithia, and DAT — reducing infra cost, deployment time, & toil.
- Focused on high-availability architecture, developer enablement, and SOC 2-compliant infrastructure automation.

Core Tech (recent focus)

Infra

- Terraform · Helm · kustomize · bash · zsh · CloudFormation
- Internal Developer Platform (IDP) Development · CI/CD · Jenkins to GitHub Actions
- Kubernetes (EKS/AKS) · Containerization (Docker, podman, containerd) · GitOps · ArgoCD
- EC2 · S3 · AWS Lambda · PostgreSQL · Elasticsearch

Observability & Compliance

- NewRelic · SignalFx · Datadog · Vanta · Snyk for SAST & DAST · SRE

Architecture

High-Level System Design & Tradeoff Evaluation · Monoliths · Microservices · Serverless Architecture

Software Development

- Next.js · Typescript · Ruby on Rails · Python

Also experienced with: · Kotlin · Spring Boot · Scala · Java

Certificates

Certified Kubernetes Administrator, Cloud Native Computing Foundation, Oct 2024

Professional Experience

Mighty Networks, Full Remote — Palo Alto, CA

November 2023 – May 2025

Staff Engineer (2023 - 2025)

- Reduced PostgreSQL end-to-end live replication lag from 6 days to 2 minutes for continuous updates.
- Saved over \$6,000/month in AWS spend anomalies (e.g., **VPC**, **NAT gateway**, and **EBS** optimization).
- Resolved quarterly Elasticsearch high latency hot spots using a shard redistribution strategy.
- Ensure continuous **SOC 2** compliance (e.g., GitHub policies, access key rotations, access reviews, etc).
- Led migration of legacy CI/CD workflows from Jenkins to **GitHub Actions**:
 - o Web:
 - Cut infra costs and improved deployment visibility of over 308 **kubernetes**-based runner pods per PR/CI run (22,000+ tests per run) through ephemeral fan out
 - Shipped performance optimizations to web CI pipeline, including GHA fan-out parallelization, test caching, and deploy concurrency safeguards.
 - Integrated CI test runs and JUnit reports into Datadog dashboards to improve alerting, flake detection, and compliance visibility.
 - Built artifact storage fanout and recombining across all nodes per run using presigned S3 URLs, replacing GitHub-hosted storage with 8x cost savings
 - o iOS:
 - Translated **fastlane** parallelization of growing collection of over **453** white label apps by user rather than by thread for continued determinism per build while paying down tech debt in the GHA design
 - Captured **Configuration as Code** for tribal knowledge about **Jenkins** pet VMs with high reliance on click ops and manual configurations to accelerate the team's efforts and collaboration around non-deterministic runs, especially those running in parallel—enabling rapid, deterministic production deployments multiple times per day
- Scaled **GitHub runners** on MacStadium and cost-balanced **EC2** instance classes across multiple EKS envs.

Staff DevOps Engineer (2022 - 2023)

- Manage (e.g., deploy, upgrade, monitor, etc) over 4 **Kubernetes** clusters on AKS-supported versions:
 - **ArgoCD GitOps-based** deployment and maintenance of bootstraps (app of apps pattern).
- **Azure Pipelines** development and maintenance:
 - Container image builds to **ACR**.
 - **Helm 2**-based pipelines facilitating ongoing releases into **Deployments** and **Rollouts**.
 - Start transitioning to **Argo Rollouts-managed** canaries via **AnalysisTemplates**.
 - Automated load testing for early latency detection and resolution, as well as proper scaling.
- **DRY** common back and front end **helm** charts development.
- Dozens of live migrations of **PostgreSQL** and **MongoDB** clusters with zero down time.
- **Infrastructure as Code**:
 - **Terraform** module maintenance in support of high level app paved paths with common use cases.
- Part time **Site Reliability Engineering**:
 - Monitor and alerting updates across entire org, all team domains, managed via **Terraform**.
 - Advise teams, PR over PR (e.g., **golden signals** and effective alerting strategies backed by runbooks).
- Sample app development for testing of new platform features and platform **regression testing** (e.g., latency):
 - Python Flask.
 - Kotlin Spring Boot Web.
- **Leadership**:
 - Help others adopt container image development using **podman** (save on *Docker Desktop* licenses).
 - Replaced ineffective quarterly security review w/**Snyk** platform and pipeline integration + PR feedback.
 - Swarm & pair program for continuous **shared understanding**.
 - Brought in additional testing coverage of helm charts to capture additional tribal k8s knowledge.
 - Engage in architectural review and production readiness for new features (e.g., will the platform scale).
 - Lead by example (e.g. TDD, volunteering, lunch & learns, demos, & capture of tribal knowledge, etc).
 - Manage **Pagerduty** on-call support rotation & sprint ceremonies as needed.

Lead Cloud Platform Engineer (2020 - 2022)

- Container image maintenance & development via **Docker**:
 - Bind mount-based abstractions of CLI-based solutions utilizing user's creds & role.
 - Maintenance of custom k8s images.
- Manage (e.g., deploy, upgrade, monitor, etc) Over 11 **Kubernetes** Clusters:
 - **Flux & ArgoCD GitOps-based** deployment and maintenance from **Artifactory** registry.
 - **Python 3** CLI-based EKS upgrades.
 - **Helm 2**-based paved paths.
 - **PromQL-based** monitoring & alerting via AlertManager and **Grafana**.
 - **Prometheus** xMatters & Slack alerting.
- **Infrastructure as Code**:
 - **Terraform** module maintenance in support of app dev paved paths.
 - **CloudFormation**-managed Slack-based alerting of states that should never occur.
- **Jenkins 2** pipeline maintenance with a focus on deployment to various **GitOps** environments.
- **Platform Documentation & Migration Guides**:
 - From commit to deployment.
 - **Runbook** capture and curation of latest team learnings.
 - End-to-end dev workflows & video demos based on current state of the platform.
- Asynchronous Writing:
 - Demo conclusions via script output and shell snippets for shared understanding across all collaborators.
 - Short (<30 second) animated GIF demos & videos in response to complex questions.
- **Leadership**:
 - DevOps advocacy referencing AWS' Roadmap to Continuous Delivery Pipeline Maturity.
 - Pair, Swarm, & Mob Program for continuous shared understanding.
 - Coach in monitoring before changes, with back-out strategies to learn with every release.
 - Establish on-call support rotation & engagement model to empower on-call with full team support.
 - Capture engagement model (i.e. team ownership, responsibility boundaries, escalation strategy, etc).
 - Lead by example (e.g. TDD, volunteering, demos, & capture of vital tribal knowledge, etc).
 - Report on cycle & lead time, adoption analytics, & anticipated MTTRs.
 - Hiring pipeline development resulting in highly engaged recent hires over priors.
 - Operationalize throughout ecosystem with an emphasis on minimizing manual steps.
 - Establish team SLAs.

Nike, Beaverton, OR

Dec 2015 – Feb 2020

Lead Software Engineer (2019 - 2020)

- **Serverless Application Model (SAM)** Python based **Slack** bot feature development and maintenance.
- Internal **React Redux** app development backed by **Spring** and **Postgres**.
- Feature development and maintenance of curated **Jenkins 2 Multibranch pipelines**.
 - Actively supporting, developing, and maintaining **EC2**, **CloudFormation**, **S3**, **Serverless Application Model/SAM**, **Kubernetes**, and 9 other community contributed pipelines + steps following the **InnerSource** model.
- **Agile** leader working to ensure app development teams have curated paths into ongoing compliance with internal corporate governing bodies (e.g. security, change management, cloud business office, etc).

Senior Software Engineer (2015 - 2019)

- Self-service and automation coaching and contribution by example.
 - Dashboards, static & dynamic alerting, **ChatOps**, **ALM**, **SDLC**, **CASE**, and **TDD**.
- **NewRelic**, **Splunk**, **CloudWatch**, and **SignalFx**.
- **CI/CD**.
 - **Jenkins 1** canary pipelines, **gradle**, and **sbt**.
 - **Packer/ami** builds.
 - **CloudFormation**, **CodeBuild**, and **CodePipeline**.
- **Python Jinja2**:
 - Daily app reporting behind various reverse proxies in **Eureka** (self-updating HTML reports).
 - **CloudFormation** passthrough template engine for building complex templates rapidly; zero maintenance.
- **CLI jq** queries & blog for APIs and **Eureka** to facilitate sharing of operational troubleshooting and research.
- **Python**, **Bash**, **Scala**, and **Ammonite** operational scripts and **Lambdas**.
- Serverless slack bot for launch scaling, dynamic alerting, and team **IAM role policy** enforcement.
- Monkeys: **asg** alerting, **iam** enforcement per approvals/merges, and culling old undeployed **ami** snapshots.
- **VPC**, **EC2**, **S3**, **Lambda**, and **API Gateway** based microservices primarily behind **Akamai**.
- **OneLogin** & **Okta** Identity Provider (**IdP**) App Maintenance.
- **Java** & **Scala** netty-based reverse proxy maintenance leveraging **Eureka** for service discovery.

International Game Technology, Reno, NV

Feb 2008 – Dec 2015

Software Engineer III (2014 - 2015)

- **Infrastructure as Code**: Develop and maintain **Jenkins** & **Bamboo** builds facilitating continuous delivery.
 - **DevOps**: Participate and lead adoption of **TDD**, continuous deployment, and **CI** best practices.
 - **VMWare**, **Openstack**, and **VirtualBox** orchestration via **salt**, **heat**, and **vagrant**.
 - Automated **KVM** based image builds with cross environment compatibility via **QEMU**.
 - Write and maintain **Python YAML** based **heat** orchestration aggregator utility.
 - **Murano** one button deployment, catalog maintenance, and cross training.
 - Maintenance of **git** repositories tying together micro builds in rapidly changing, easy to use ways.
 - Automated validation of **postgresql**, **mysql**, **rabbitmq**, **memcached**, **redis**, and **nginx** environments.
 - Maintenance of **puppet** based one button deployments in **Jenkins 1**.
 - Fully unattended continuous deployment & continuous integration from dev to production.
- Driving a Mirantis **Openstack** environment with **DevStack Murano** cross training: tomorrow's features, today.
- Maintenance of **salt**, **salt-cloud**, and **bash** configuration management across product lines.
- Maintain **Confluence** and **JIRA** as gaps identified during active sprints across multiple teams, in parallel.
- Maintain **CA AppLogic** catalogs and app descriptors.
- **Test driven development** targeting over 72% **code coverage**.
- Maintenance of custom actions, **msbuild** tasks, **WPF**, **Windows Forms**, console, **WCF**, and **ASP.NET**.

Software Engineer II (2012 - 2013)

- Wrote and maintained CD targeting **CA AppLogic**.
- **Test driven development** via **CD**, **CI**, **smoke testing**, **functional testing**, and **code coverage**.
- **CA AppLogic**, **Python**, **Bottle**, **SQLAlchemy**, **WebTest**, and **Zenoss ZenPack** dev using **DevOps** best practices.
- **TDD**: Developed suite of functional tests to identify software regressions in code checked in same day.

Software Engineer I (2011 - 2012)

- **Installshield 2010 MSI** development and maintenance, integration of custom **C#** actions.
- Write new VS2008 & VS2010 add-ins simplifying daily work flows for **C# WCF** services via custom actions.
- Maintained and added features to internal **XML** based **SQL** seeding tools.
- Maintained **SQL Server Reporting Services** reports.
- Wrote new custom actions to facilitate deployment time configuration of newly written **C# WCF** services.
- Write and maintain **WPF** based UI modules, including bug fixes reported via **TFS** work items.
- Write and maintain **WordPress** blog for common error messages encountered during software testing.
- Maintained **TFS 2010 msbuild** scripts, **unit tests**, and deployment scripts/**MSIs**.
- Write and maintain custom actions, **msbuild** tasks, **WPF**, **Windows Forms**, console, and **ASP.NET**.
- Maintenance of **WCF** services.

Technical Intern (2008 - 2010)

- Assisted in software maintenance and bug fixes in **TFS** for **WPF** UI based on the cab model.

- Maintained **TFS** 2008 msbuild scripts, continuous integration, and deployment scripts/**MSIs**.
- Write & maintain **SharePoint** and **TFS** work item documentation in word format.
- Manual continuous deployment.
- Write and maintain **msbuild** tasks, **WPF**, and some **ASP.NET**.

Faucette Micro Systems, Inc, Fallon, NV

2000 – Feb 2008

Programmer (2000 - 2008)

- Introduced use and adoption of **PHP** and **Dreamweaver** based page maintenance.
- Wrote and maintained **Windows services** for seamless data integration between legacy and new web systems.
- Wrote and introduced use of **Ghostscript**-based report maintenance tool for **Fytek PDF** reporting.
- Wrote and introduced use of iep templating and business logic scripting language based upon **VOScript**.
- Researched and deployed in-office low cost open source **source control** and task management solutions.
- Configuring **Windows servers** in field, laying new cable, on-site troubleshooting of **VB** based systems.
- Level 2 phone technical support for **Windows & HTML4** based software products.
- Using **GIMP** designed UI graphics for web systems.
- Lead initial design, implementation, validation, and support of new **HTML4** based MIS systems.

Side Projects

Public Speaking

2018 - 2022

- Speak at **Communities of Practice** (COPs) on topics of community interest (e.g. Java 9-12, POCs, changes from the larger open source community, etc)
- Cross Section Between **InnerSource** & **Agile**: Improving the Impact of Technical Contributions ...

*WordPress **ElasticBeanstalk** Package Builder, Latest Source Per Build; billyjf.com*

2016 - 2022

- ~\$5.56/month on **AWS: Elastic Beanstalk, EFS, RDS, S3, CloudFront**, and **CloudFormation**.
 - o https://github.com/billyjf/aws_blueprint_ebs_wordpress_efs_rds

API Gateway Authentication & Authorization POCs

2018

- Authorizers for Basic auth with additional experimentation planned for **JWT** & **SSO**.
 - o <https://github.com/billyjf/api-gateway-custom-authorizers>

Carb Counter

2017

- Webix front end built on **AWS Serverless Application Model (SAM)** with **Python** Nutritionix backend.
 - o https://github.com/billyjf/aws_serverless_application_model_python