

Samuel Freiberg

Experienced Software and SRE Engineer with a focus on high availability and system architecture. Active open-source contributor whose software is featured in three security books.

Austin, TX
sam@heysam.org
heysam.org
github.com/sfreiberg

EXPERIENCE

ThetaFlow, Remote — *Software Engineer*

March 2025 - Current

[ThetaFlow](#) is currently in closed beta but has been running in production for several months.

- Designed and built ThetaFlow.app in Go and PostgreSQL to automate end-to-end options trading strategies on multiple brokerages
- Built an MCP server exposing a market-data archive to AI agents
- Built an LLM pipeline that flags market-moving news and pushes cited briefs to iOS
- Built a market-signal platform end to end: a Go/Postgres archive and rules engine with real-time APIs and push, plus its native SwiftUI iOS/macOS app
- Built reliable job orchestration for trade execution, scheduling, market holidays, and duplicate prevention
- Integrated real-time market data and historical backtesting to support strategy execution and development
- Developed position/P&L tracking, trade conflict prevention, and user strategy configuration

Cisco (via Splunk acquisition), Remote — *Software Engineer*

September 2024 - March 2025

Continued role following Cisco's acquisition of Splunk.

- Built a configuration-resolution prototype in Go
- Led team discussions on operational pain points, informing offsite priorities and solutions
- Developed LVM restore functionality to maintain data synchronization between active and passive stacks

Splunk, Remote — *Software Engineer*

November 2023 - September 2024

- Worked on several Proof of Concepts to improve or reduce Splunk's dependency on Puppet to manage the 70,000+ servers
- Update and improve Puppet configurations
- Participate in code reviews
- Participated in on-call rotation

Operating Systems

Linux

macOS

Programming Languages

Go (golang)

Swift/SwiftUI (beginner)

Ruby (rusty)

Python (limited)

SQL

Clouds

Google Cloud

AWS

VMware

Splunk (contractor via ITCO), Remote — Software Engineer

April 2023 - November 2023

- Worked on the Cloudworks Execution Service project
 - Built out backend API and CLI tooling for interacting with the API
 - Built out a generic database backend with a DynamoDB provider and model validation
 - Implemented unit testing in GitLab CI/CD
 - Refactored a Go Puppet library
 - Code reviews
- Mentored coworkers on Go and MR/PR best practices
- Participated in on-call and monthly maintenance activities

Teleport, Remote — Software Engineer

October 2022 - February 2023

- Submit bug, documentation and security fixes to the open source and enterprise versions of goteleport.com. All code written in Go (Golang). Contributions to the open source repository can be found at github.com/gravitational/teleport/pulls/sfreiberg.
- Numerous PR reviews
- Backport security and bug fixes via git cherry-pick

Overhaul, Austin, TX — Sr Site Reliability Engineer

August 2021 - October 2022

- Manage ~10 Kubernetes clusters in AWS
- Manage 12-15 applications in Kubernetes via Helm
- Responsible for maintaining uptime and SRE best practices including post mortems, SLOs/SLAs and HA
- Write Python and Go as needed for automation of the environment and Kubernetes improvements, including:
 - Created gRPC client/server for managing portal DNS
 - Creating custom modules for Pulumi (Python)
 - Add [Azure support](#) for custom lifecycle controller in Kubernetes
 - Add [Azure backup functionality](#) to custom CLI tool for managing etcd clusters within Kubernetes (Go)
- Work with Datadog to add metrics and alerts

Google, Austin, TX — Systems Development Engineer

April 2019 - August 2021

- Achieved Go Readability in considerably less CLs and SLOC than the median applicant
- Created the idea and base implementation for Accountly. Accountly is a health check that verifies a user's account health across many disparate account systems and groups inside Google. Programmatically called a dozen or so gRPC services and created 100's of business rules in software to ascertain the health of an account.

- Led weekly beginner programming classes for participants from multiple teams that wanted to improve their programming skills. Also did 1:1 mentoring with individuals from multiple teams
- Created automation to improve security, reliability and speed for reducing toil when assigning the ability to change passwords for Windows Role Accounts

Apollo GraphQL, San Francisco, CA — *Site Reliability Engineer*

May 2018 - April 2019

- Work with Terraform to manage various infrastructure pieces
- Work with Kubernetes for hosting and deployment
- Wrote a Druid stats collector in Go
- Created new security policies, handled security questionnaires from outside companies and set up a monthly security scan for infrastructure
- Create and update metrics and monitors in Datadog
- Create processes and procedures for postmortems

Planet, Mountain View, CA — *Sr. Mgr, Systems Administration*

April 2017 - May 2018

- Manage a team of 3 and sit on the leadership team for the operations department
- Wrote a web application to manage Polycom video conferencing units across all locations
- Architect and oversee the roll out of Nextcloud and OnlyOffice
- Manage the technical and personnel transition from Google to Planet
- Deploy applications via Salt and Ansible to AWS, Google Cloud and internal cloud
- Manage monitoring via Zabbix, including writing custom apps to monitor things like LunaSA hardware security modules

Google, Mountain View, CA — *DevOps Engineering Manager*

August 2014 - April 2017

- Directly manage a DevOps team of 5-7 people supporting Google's Satellite and ITAR teams
- Manage daily operation for the larger Technical Operations team of about 20 people
- Design and oversee the implementation of the Google ITAR Data Center
- Responsible for more than 1,000 servers utilizing technologies such as VMware, NetApp, Ansible and Ubuntu
- Write scripts and applications as required, primarily in Go (golang)

Skybox Imaging, Mountain View, CA — *Sr. Site Reliability Engineer*

September 2013 - August 2014

- Manage a DevOps team supporting deployments, build systems and custom applications

- Manage daily operations for the larger Technical Operations team of about 20 people managing VMware, NetApp, Ubuntu and Windows
- Manage more than 500 Ubuntu servers
- Write and implement server monitoring software in Go (golang)
- Write a root cause analysis web application in Ruby on Rails

Upthere, Palo Alto, CA — Senior Systems Engineer

April 2013 - August 2013

- Implement monitoring for production servers with Zabbix and custom scripts
- Deploy web applications
- Manage Ubuntu servers

Vertical Response, San Francisco, CA — Senior Systems Engineer

October 2011 - March 2013

- Manage ~500 CentOS/RHEL servers
- Configure and deploy Puppet infrastructure for QA environment
- Wrote application in Go (golang) for testing email infrastructure
- Manage three Message Systems (ecelerity) clusters
- Manage F5 BigIP load balancers
- Write Ruby/Bash scripts as needed

netSerious, Lenexa, KS — Developer/Owner

January 2010 - August 2014

- Build and manage Ruby on Rails applications with MySQL and Postgres backends
- Set up and configure Mercurial infrastructure for QLogic. Provide Mercurial training for developers
- Launched several online services with e-commerce components

NIC Inc., Olathe, KS — Systems Administrator

February 2011 - October 2011

- Manage ~1000 servers that were responsible for processing more than \$10 billion dollars for federal, state, city and county governments
- Manage web/application servers (Apache/Tomcat) running Perl, PHP, Java and Ruby on Rails applications
- Manage database servers (MySQL/Oracle)
- Augment existing monitoring solutions with Nagios/Icinga

Barkley, Kansas City, MO — Senior Systems Engineer

September 2005 - July 2010

- Architect and manage highly available/reliable websites for companies like the Kansas City Chiefs (NFL team), H&R Block, Sears and Build-A-Bear
- Architect and manage highly available MySQL and SQL Servers
- Converted Interactive department version control from CVS to Subversion

- Converted all Linux boxes to Solaris 10 and implemented Zones for easier management and consolidation
- Created the first Ruby on Rails application at Barkley to demo the technology. Also built out the production Ruby on Rails environment using Litespeed and Solaris 10
- Transitioned all physical servers to virtual servers hosted on VMware ESX 3

look and feel new media, Kansas City, MO — Senior Systems Engineer

March 2001 - September 2005

- Manage highly available/reliable websites for companies like the Kansas City Chiefs (NFL team), H&R Block, Sears and Sprint
- Wrote two popular security programs. [Snort Alert Monitor \(SAM\)](#) and SAM Jr were written to help find people and computers that are attacking your network. SAM has been downloaded nearly 20,000 times and has been mentioned in three books to date.
- Administer and oversee ~45 servers. Operating systems included Windows NT, Windows 2000, Linux, OpenBSD and Mac OS 8. Network services included Exchange, Sendmail, IIS, Apache, JRun, Tomcat, MySQL, SQL Server, Bind and Microsoft DNS.
- Built bridging OpenBSD based firewalls that included fail-over capabilities. The use of the highly secure OpenBSD and commodity hardware saved the company approximately \$30,000 over a comparable proprietary solution.
- Administer scheduled server maintenance including checking event logs, restoring from backup, and configuring and monitoring Performance Monitor
- Day-to-day administrative tasks including changing/resetting passwords and file permissions

Planning Systems, Olathe, KS — UNIX Administrator

March 2000 - June 2001

- Wrote a specialized backup utility in Java
- Wrote a system report logger in PHP/HTML with a MySQL back end
- Wrote two small utilities in Perl
- Administered five Solaris 2.6 servers
- Administered a prototype program being used by Air Traffic Controllers in the Federal Aviation Administration