

OVERVIEW

I'm a technologist with more than fifteen years of experience building systems at startups and growing them successfully. I'm at my best when wearing several hats, and usually do a mix of backend software development, system/network/database administration, information security, system architecture, and internal tool development.

TECHNICAL SKILLS AND TOOLS

Languages: Ruby, Python, Rust, C, Bourne Shell, Go, Perl5, JavaScript¹

Operating Systems: Linux (mostly Debian/Ubuntu and Red Hat/CentOS, but I did a lot with Gentoo in my youth), macOS, JunOS, Vyatta / VyOS, UnifiOS, a very small amount of Cisco IOS, some experience with SunOS and FreeBSD

Databases: MySQL, Galera Cluster for MySQL, PostgreSQL, Clickhouse, Cassandra, Vertica, Redis, Elasticsearch, SQLite, RRD/Whisper

Configuration Management: Puppet 2+, Kubernetes², some Ansible, Terraform, several home-grown solutions, various Docker things

Markup: (X)HTML, L^AT_EX/T_EX, Markdown

Software: apache, lighttpd, nginx, BIND, postfix, Courier, SpamAssassin, OpenLDAP, NFS, Samba, rsync, OpenSSH, OpenVPN, bash, zsh, (neo)vi(m), portage, apt/dpkg, rpm, firehol, iptables, haproxy, git, subversion, make, gcc, gdb, libtool, autotools, uwsgi, puma, cargo, Phabricator

LINKS

<https://github.com/RogueLazer>

<https://www.roguelazer.com>

WORK EXPERIENCE

Software Engineer, *Svix*, San Francisco 7/2025 – present

- Small startup making *webhooks-as-a-service*
- Backend application development in Rust and Python
- Set up and operated Clickhouse cluster on EKS using Altinity Operator; migrated OLAP parts of application from PostgreSQL to Clickhouse
- Administrated lots of services on AWS using Terraform
- Led office build-out in San Francisco

Data, Tools, and Infrastructure Engineer, *Instrumentl*, Remote 10/2022 – 6/2025

- Full-stack application development on customer-facing Rails & EmberJS application
- Took ownership of all customer authentication; built SSO (with OpenID Connect) and MFA support into the application, including all frontend and backend work, as well as customer communication
- Designed and implemented the entire public API, including customer communications, project management, the entire backend, documentation, and maintenance
- Rolled out comprehensive observability and operations practices, including centralized log collection (both unstructured/human-readable logs and structured logs), metrics (Prometheus/etc), and alerting. Developed the initial on-call rotation and served in it for several years. Developed postmortem process and wrote lots of postmorta.
- Developed internal administrative tools and reporting interfaces
- Administrated several PostgreSQL database clusters, including advising other developers on schema and query design and doing various database operations tasks
- Parsed altogether too much XML from the Internal Revenue Service
- Ported various applications from Heroku to Kubernetes running under GKE

¹I have in the past known bits of Java, C++, PHP, OCaml, Haskell, and SML, too; open to learning anything

²does anyone *know* Kubernetes?

- Miscellaneous corporate IT work, including MDM/DEP/VPP setup, tool inventorying, onboarding and offboarding, office/network buildout for Oakland, CA office (all Ubiquiti gear)
- Significant developer experience work, including migrating most of the engineers from asdf to docker-compose, rolling out OrbStack as the local Docker distribution, and actually writing most of the Dockerfiles
- First (and often only) employee working on security and compliance. Rolled out various basic IT security practices to organization (such as MFA for internal services like Google Workspace and security awareness training); rolled out engineering security practices (like brakeman static analysis, Dependabot, and proper AWS permissions); completed dozens of customer security questionnaires and meetings; discovered and fixed numerous security issues
- Worked with another engineer to rewrite the billing system, migrating away from a 10-years-out-of-date third-party gem to native Stripe subscriptions
- Wrote and managed a large collection of Github Actions workflows
- Worked closely with teams using LLMs and other “AI” technologies to ensure that our use of such technologies meets our security and availability goals
- Constant hiring; reviewed dozens of take-home code tests and conducted dozens of interviews both for engineers and for engineering leadership; developed multiple generations of new interview questions and practices

Infrastructure Architect, *EasyPost*, San Francisco, CA

9/2015 – 9/2022

- Administrated, designed, and purchased new production systems.
- Wrote and maintained customer-facing applications in Ruby, Python, Go, and Rust
- Built infrastructural components and distributed systems in Python and Rust
- Designed and rolled out heterogeneous multi-datacenter strategy using AWS, IBM Cloud, and rented space in physical datacenters. Designed, configured and administrated highly-available backend WAN with site-to-site VPNs and dynamic (BGP) routing using heterogeneous network platforms, including Vyatta/VyOS and various JunOS products
- Maintained Puppet configuration manifests
- Selected, configured, deployed, and DBAed for both OLTP and OLAP database systems using MySQL, Vertica, and Cassandra; migrated MySQL systems to use Galera / Percona XtraDB Cluster
- Architected and deployed log management and analysis system based on Apache Kafka, Elasticsearch, Secor, and Elastic MapReduce, as well as a custom-developed endpoint log collection/buffering daemon written in Rust which processed thousands of lines per second
- Managed internal distribution with hundreds of backports based on CentOS Linux; upgrading distribution from EL6 to EL8 with no downtime and minimal engineering impact
- Managed office IT, including contract negotiations, purchasing, developing security and provision procedures for employee systems and networks, actually provisioning all new employee laptops, occasionally putting together desks and chairs, and cleaning the machine room. Designed office network built on Cisco Meraki + VyOS. Fixed the printer when it broke. Hired head of IT to take over all of that so I don’t have to fix the printer any more.
- Designed and built development systems, including fully-automated per-engineer development environment provisioning using Packer and Vagrant (with backends for both VirtualBox and AWS). Built full staging environment in AWS VPC, integrated with development environments. Designed custom CI framework using Jenkins and Docker. Rolled out Phabricator, integrated into custom CI environment, including clustering/HA functionality.
- Participated in (and sometimes solely operated) 24-hour on-call rotations

- Built automated monitoring stack on top of Carbon and PagerDuty monitoring tens of thousands of metrics per second
- Designed and implemented Single-Sign-On system for all internal web applications with custom authorization DSL and MFA integration via Duo
- Implemented PAM plugin for more reliable MFA on SSH sessions
- Designed and implemented security policies; SOC1 and SOC2 audits³; performed evaluations of third-party vendors and responded to evaluation requests from customers and partners; performed Incident Response and follow-up as necessary
- Performed last-tier technical customer support
- Trained co-workers in new tools and techniques
- Rapidly transitioned medium-sized (~300-person) company from entirely in-person in San Francisco to primarily-remote, including building out new tools and processes

Staff Security Engineer, Uber, San Francisco, CA 1/2015 – 7/2015

- Worked to improve security and user privacy in a challenging environment with hundreds of code releases per day, few design or code review policies, and extremely aggressive schedules
- Implemented two-factor-authentication for production environment, including implementing custom PAM modules
- Built static analyzers to detect SQL injection vulnerabilities and potential credential misuse in Python code
- Co-developed internal risk assessment and threat modeling framework
- Served as only non-executive on the interview panel to hire CSO and CISO

Staff Infrastructure Engineer, Uber, San Francisco, CA 4/2013 – 1/2015

- Developed code, operated systems, and architected functionality to scale Uber's product from hundreds of thousands of users to tens of millions, from tens of engineers to hundreds of engineers, and from hundreds of servers to tens of thousands of servers
- Owned Nagios config generation (using Clusto) and PagerDuty integration, scaling to over 100,000 services tracked per Nagios server
- Led security efforts for a while, then hired dedicated security team
- Designed and implemented new code deployment and cluster management systems; architected a much more full-featured code deployment system (named μ Deploy) and supervised its implementation by a remote team
- Participated and trained others in 24-hour on-call rotation
- Contributed to administration of large PostgreSQL cluster, including debugging and optimization of PostgreSQL internals
- Designed and administrated multiple MySQL / Percona SQL Server clusters
- Contributed to configuration and administration of many other data stores, including Redis, Riak, and HP Vertica
- Set up and maintained several different metrics and logging systems, including Kafka (0.8) for logs and Graphite (statsite/carbon/whisper/etc) for metrics.
- Designed and implemented myriad internal tools and libraries
- Ran engineering architecture training
- Prepped for successful IPO

Systems Engineer, Yelp, San Francisco, CA 6/2010 – 4/2013

- Acted as both a developer and a systems administrator to keep multi-million-user website running efficiently across hundreds of machines, more than 200 developers, and hundreds of thousands of lines of code
- Debugged and resolved numerous site issues at all levels, from Ethernet frames to stack frames to iframes

³Wrote and/or edited policies, presented to auditors, collected evidence, etc

- Was a key player in multi-datacenter scale-out, working to build out cages on both sides of the country as well as managing a hosted virtual datacenter through SoftLayer
- Developed staging and deployment procedures and tools
- Administrated developer tools (trac, git, reviewboard, etc)
- Wrote high-performance utilities in C to optimize critical functionality
- Maintained internal Debian/Ubuntu-derived distribution
- Participated in a regular 24-hour call rotation and other operations duties
- Worked closely with DBAs on operational maintenance of both MySQL and non-relational databases; also assisted in query debugging and optimization
- Worked closely with the network operations team, including designing new production networks, and administrating Cisco, Juniper, and Force10 networking equipment
- Interacted with third-party vendors and coordinated millions of dollars of purchases
- Built, experimented with, and debugged “cloud” services across multiple providers
- Led first-response teams for several security incidents and designed new security tools and policies
- Prepped for successful IPO

System Administration Staff, *Harvey Mudd College*, Claremont, CA 12/2007 – 5/2010

- Led a team of student administrators to manage a mixed network of Apple workstations, Gentoo and Red Hat Linux servers, Apple Xserves, and one lonely Windows 2003 server
- Ported internally-developed ticket tracking tool from Rails 1 to Rails 2

Corporate Operations Engineering Intern, *Google*, New York, NY 6/2009 – 8/2009

- Performed user support in a mixed-platform environment; I was that tech stop person who knew how to properly configure X11 on the T40’s under Goobuntu
- Designed and implemented a web dashboard running on Google App Engine precursor to integrate multiple data sources for analysis of corporate security logs

Systems Manager, *FRED-TV*, Fall River, MA 12/2005 – 8/2006

- Managed a network of approximately 30 workstations used for video editing
- Implemented OpenLDAP authentication, network-shared home directories, and Kerberos using Mac OS X Server

EDUCATION

Bachelor of Science, Computer Science; *Humanities Concentration*, Music
 Harvey Mudd College, Claremont, CA, May 2010
 GPA: 3.698 overall (graduated with distinction), 3.853 in-major

RESEARCH EXPERIENCE

Clay-Wolkin Fellow, *Harvey Mudd College*, Claremont, CA 1/2007 – 5/2010

- Exclusive fellowship for research in digital engineering topics with Professor David Money Harris, sponsored by Sun Microsystems and Intel
- Researched novel methods of digital circuit design, including multiple-output static logic, sub-threshold circuit optimization, and multiplier optimization
- Designed a suite of tools in Ruby to visualize Verilog files and integrate timing data when optimizing circuit layouts
- Maintained servers and associated CAD software for Engineering Department

Summer Research Assistant, *Harvey Mudd College*, Claremont, CA 5/2008 – 8/2008

- Worked on a team of four to explore innovative diagram recognition techniques with Professor Christine Alvarado
- Implemented vision-based recognition algorithms in a C# 2.0 codebase

PROFESSIONAL ASSOCIATIONS

Association for Computing Machinery Professional Member since 2010
USENIX Individual Member since 2014