Andy Reitz

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Profile

Experienced software engineer with 20 years of expertise in UNIX systems, networking, and programming, seeking to improve the developer productivity for companies that leverage technology.

Skills

UNIX systems including Linux, macOS, FreeBSD, and Solaris
Programming in Ruby, Python, shell, Perl, Java, Go, and C
Data networking including TCP/IP, Ethernet, VLAN, Routing, Firewall, NAT, and DHCP
Tools including Jenkins, Review Board, puppet, git, Confluence, Jira, GitHub Enterprise, AWS, and Pants

Experience

REDDIT INC.   SAN FRANCISCO, CA   8/2023 - PRESENT

During my tenure on the Release Infrastructure team at Reddit, I played a key role in stabilizing and improving the GitHub Enterprise Server installation. I accomplished this by establishing a staging cluster that mirrors production, developing automation for major version upgrades, and successfully executing three major version upgrades. Prior to these improvements, GitHub upgrades were daunting, often resulting in excessive downtime and significant challenges for the team. Now, upgrades are rigorously tested before rollout, and they are installed efficiently. As a result, Reddit is not only on a supported version of GitHub Enterprise Server but can also leverage the much-desired Merge Queue feature, which I integrated into Reddit's key frontend repository. This involved reworking aspects of the CI builds to better align with Merge Queue and creating comprehensive end-user and administrator documentation.

I also led the rollout of GitHub Copilot, designing a self-serve onboarding flow and crafting internal documentation for users.

I enhanced transparency and internal communication within the team by pushing to open our Slack channel for company-wide visibility, initiating a devx-notes@ email list for sharing meeting notes with vendors and stakeholders, and consistently posting daily work updates in Slack. The quality and level of my work has culminated in a promotion to Staff Software Engineer.

STRIPE INC.   SAN FRANCISCO, CA   1/2016 - 8/2023

In my 7.5 years at Stripe, I served as a senior engineer focused on ensuring Stripe's engineers could write code with velocity and safety. I started off helping to maintain Stripe's Continuous Integration (CI) system, developer environment, and source control (SCM) systems. Over time, as the company grew, I focused more on Stripe's core SCM and Code Review tooling and the integrations between these systems and CI.

I joined Stripe as part of an experimental batch of SREs, but my role and body of work were indistinguishable from other software engineers at the company. During my time at Stripe, I helped to maintain and push forward various tools used by engineers internally. I helped the company grow by completing over 450 interviews, writing design documents,

managing projects, managing customer expectations, working across teams, mentoring junior engineers (including several interns), and partnering with recruiting on improving hiring practices. In 2022, I focused on building a team around code storage, search, and review. This initiative involved mentoring new members of the team, setting the overall direction, and leading the scoping, design, and implementation of projects. In addition, I owned Stripe's relationship with GitHub, participating on their customer advisory board, negotiating contracts, and directing Stripe on the best ways to leverage GitHub's software.

For over 6 years, I was primarily responsible for the maintenance, performance, and reliability of the GitHub Enterprise Server at Stripe. I lead the development of Stripe's first Merge Queue, which enabled engineering velocity to be maintained as Stripe grew. I was heavily involved in developing Stripe's processes around code storage and code review. As a key stakeholder in Stripe's code review system, I was able to lead the development of several projects focused on improving code review processes, including the development of a system that could automate reviews when we could statically assert that a proposed change was safe. I also directed the migration of over 600 git repositories from github.com to an internal GitHub Enterprise Server instance.

TWITTER INC.   **SAN FRANCISCO, CA**   **7/2011 – 10/2015**
SOFTWARE ENGINEER, BUILD TEAM   **4/2012 – 10/2015**

In April of 2012, I joined a newly formed team at Twitter focused on developer productivity. During my time on this team, I performed a variety of duties, ranging from maintaining internal git and Review Board services, maintaining our use of maven in a large scala repository, and helping to maintain *Pants* (Twitter's homegrown build tool). Along the way, I worked on projects to convert said scala repository from Maven to Pants, performed critical integration work to upgrade Pants, and worked on getting Twitter into a monorepo, with a true monobuild. I also wrote documentation, developed training courses (that I frequently delivered inside of Twitter), and provided excellent support to our customers. During this time I worked on several side projects, including revamping Twitter's internal people directory which included adding a feature to support employee recognition.

SOFTWARE ENGINEER, RELEASE TEAM   **7/2011 – 4/2012**

As a release engineer at Twitter, my team was responsible for daily deploys of Twitter's frontend Ruby on Rails application. This role entailed not only performing deploys but also performing light QA, site reliability functions, and on-call support. I also helped maintain several in-house tools (written in everything from Ruby, to Rails, to Java). In addition, I was part of a small team that built out a new test environment and built a complete copy of Twitter from scratch. This effort involved learning how to install and configure every layer of Twitter's stack, including discovering service dependencies, rewriting config files, and figuring out how to bootstrap the system while including enough data for the test site to be useful.

POPSUGAR INC.   **SAN FRANCISCO, CA**   **4/2008 – 6/2011**

For two years, I was the sole dedicated member of the operations staff at PopSugar Inc. I was in charge of all aspects of the operation of PopSugar's web properties. This included maintaining two different software stacks (one Java/Tomcat, the other PHP/Lighttpd) in two

separate managed facilities. I built and/or maintained the following: alert monitoring, performance monitoring, on-call support, build/release, MySQL administration, backups, and tools for development. Notable projects included: building an environment that passed PCI DSS audit, a full data center migration, and building alert monitoring from scratch.

AGGREGATE KNOWLEDGE   **SAN MATEO, CA**   **9/2006 – 4/2008**

As a Systems Administrator and Developer, I:

- Built and managed Linux and Solaris web infrastructure, handling code releases and network management.
- Helped to bring up equipment in a new co-located facility, developed custom Nagios plugins, and statistics gathering scripts.

EDS   **SUNNYVALE, CA**   **4/2003 – 8/2006**

As a Field Engineer in the Automated Operations business unit at EDS (formerly Loudcloud, Inc.), I:

- Provided advanced support for an automated operations system, supporting legacy tools.
- Developed and refactored software in Perl and Java to enhance stability and supportability.
- Promoted next-gen communication tools like blogs and wikis to enhance collaboration.

CCSO, UNIVERSITY OF ILLINOIS   **URBANA, IL**   **3/2000 – 5/2001**

As a research assistant in the Workstation Services Group, I:

- Designed and deployed a pilot SunRay project, including network design and system integration.
- Researched unified campus-wide storage solutions, focusing on Samba, clustering, and AppleTalk integration.

AMERITECH BROADBAND LAB   **HOFFMAN ESTATES, IL**   **SUMMERS OF 1995 – 1998**

- Tested network devices and protocols, including ATM switches, ADSL CPE, and Frame Relay.
- Managed production IP firewalls and provided customer support for Ameritech's initial ADSL trial.
- Administered UNIX systems, including web, DHCP, and SMTP servers.

Education

University of Illinois at Urbana-Champaign – MS in Computer Science, 2001
Case Western Reserve University - BS in Computer Science, 1999

Masters Thesis

"The Dynamic Port Reservation Protocol". With advisor Robin Kravets, I designed an UDPv4 protocol to simplify inbound port reservations on NAT gateways, solving the "NAT traversal" problem for network applications.