Phil Dibowitz

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Site Reliability Engineer/Production Engineer with over 20 years of experience designing and automating complex systems at scale as well as a deep interest in open source, automation, systems engineering, and security.

WORK EXPERIENCE

Sabbatical (2022 – 2023)

Vicarious, Union City, CA (2019 – 2022)

Manager Infrastructure Engineering & IT (2020 – 2022)
Infrastructure Engineer (2019 – 2020)

Management, Leadership, and Vision

- Redesigned the interview process to gain higher signal and attract candidates with broader skill sets
- Designed and led cross-training efforts enabling shared oncall across the team rather than individuals being always-on-call for a single aspect of the service
- Built a performance review system (before the company had one) for my team that included downward, peer, and upward feedback
- Worked with HR to design and roll out a consistent engineer leveling system across all teams
- Managed transition to hosted version of GitHub, JIRA, and Confluence — eliminating the overhead of managing these services locally
- Led initiative to build AMIs with packer-chef (vs. shell scripts) to utilize common code and configurations
- Started monthly docs hackathons to make both oncall and onboarding easier and more consistent
- Trained the IT team on coding which evolved into a weekly coding-n00bs office hours to enable IT and other teams to learn or grow their coding skills and promote automation
- Led sessions for cross-functional teams wanting support in automating their workflows, leveraging existing tools and infrastructure, and moving to deployable artifacts

Technical

- Rolled out configuration management (Chef) to all local and remote production systems which were previously manually configured - automating configuration as well as preventing configuration drift/rot
- Built training and tooling to ensure consistent operating knowledge across the team of configuration management principles, Chef, and git
- Migrated remote customer systems to a local users and authentication model, managed by Chef (vs. corp-AD-over-VPN) increasing reliability for customer production systems

- Deployed local production artifact (systems packages, releases, Chef bundles, etc.) repositories at each customer site to enable a local source of truth replacing a fragile corp-AD-over-VPN process and significantly increasing customer site reliability
- Redesigned imaging stack to be deployable at customer sites enabling remote robot repair and reimaging improving resolution time from days to hours
- Moved robots to mirrored hard drives significantly reducing chance and duration of failures
- Retooled the build pipelines for the EKS clusters to match actual production and establish a source of truth, as well as implement regular EKS test and upgrades
- Designed and implemented a server-client system to generate on-demand PXE seeds and preseed configs to automate remote imaging of robots without remote console
- Automated Mikrotik and Netgear switch provisioning
- Automated new customer setup (IP allocation, customer IDs, groups, cookbook skeletons, etc.)
- Write cli tool to enable frictionless remote machine power-cycling across sites and multiple firewalls.
- Wrote and open-sourced SugarJar (github.com/jaymzh/sugarjar) which simplifies working with git and GitHub
- Built Chef APIs for managing BIOS settings, NetworkManager, SSH, nginx, and sssd as well as contributing them upstream
- Mentored the IT team through coding and technical implementation of automating new employee onboarding & offboarding, enrolling corp servers and laptops in Chef, and managing their fleet via code
- Ported many Chef tools to Windows to help IT in their migration
- Co-redesigned the corp networking to significantly simplify it while adding bandwidth to ease COVID-era remote work

Facebook, Menlo Park, CA (2010 – 2019)

Production Engineer: Operating Systems – Tech Lead (2012 – 2019)
Production Engineer: Traffic Team (2011 – 2012)
Production Engineer (2010 – 2011)

<u>Management, Leadership, and Vision</u>

- Managed redesign and implementation of configuration management with focus on enabling scaling number of systems independent of the infra team size
- Led team to drive adoption of aforementioned system first through organic growth and eventually strict policy creating both a unified system and a positive migration experience
- Identified infra areas needing improvement or lacking ownership (security updates, virtualization, package building/distribution, automated change testing) and built a plan to transition to the team and improve them
- Championed an open-source upstream-first mentality within the team: staying close to upstream, pushing features/fixes, releasing tooling wherever possible, etc.
- Identified future scaling needs would depend on influence of and understanding of community direction. In response, built on existing open source mentality to help team reach out and build relationships with strategic upstream open-source teams including the Anaconda, systemd, and RPM and others. Making this a core part of the team work was a big bet which enabled collaboration with upstream on various long-term visions
- Grew the team in response to additional responsibility (see point 3 above), including building onboarding documentation and individualized growth plans

- Identified and built key cross-functional relationships between team and others that allow us to collaborate and build better solutions faster with less stress.
- Traveled regularly to remote offices to teach technical and non-technical classes to reinforce cultural consistency/growth across the org and ensure remote employees feel connected
- Individual team member development for team of 8 including, weekly 1:1s focused on on individual growth, career growth, and project prioritization, co-writing bi-yearly reviews and defending them in org-wide calibrations, etc.
- Planned and drive bi-yearly team road mapping. Cross functional collaboration on team roadmap to ensure org-wide alignment. Socialize road map and previous half review

Technical

- Designed a system to route configuration management alarms to the right team, reducing oncall load on central team
- Wrote automated tooling to sync CentOS updates and roll them out safely on a 2- week cycle ensuring consistent timely security updates
- Built an extensible Chef APIs for a variety of complicated uses cases including managing storage devices, mounts, and complex service configs, most of which are now open source.
- Worked with auditors to have clean/easy audit reports, and built transparency into tooling to aid in yearly audits
- Led the OS & Load balancer side of project to bring full-parity IPv6 support to Facebook
- Worked with upstream kernel to fix and upstream new features and fixes to the ip6_tunnel module
- One of two primary authors of the automation system used to configure and converge hardware load balancers
- Automated bootstrapping of new clusters enabling infra to keep up with product growth
- Rebuilt internal LDAP infrastructure improving engineer development problems
- Wrote tooling for new engineers to opt-into accounts; write tooling for reaping of unused accounts (for current employees)

Google, Zurich, Switzerland (2008 – 2010)

Site Reliability Engineer, Gmail

Ticketmaster, Los Angeles, CA (2005 – 2008)

Senior UNIX Systems Administrator (2006 – 2008)
UNIX Systems Administrator (2005 – 2006)

Previous Experience from 2000 through 2005 left off for brevity.

EDUCATION

University of Southern California

B.S. in Computer Engineering Computer Science

References available on request.