

# Ryan Parman

Cloud-native engineering leader with a focus on reliability, scalability, and security for the modern web.

Links: [GitHub \(personal\)](#) • [GitHub \(side project\)](#) • [LinkedIn](#) • [Stack Overflow](#) • [Role-targeted résumés](#)

Format: [Web](#) • [PDF](#) • [Word](#) • [OpenDocument](#) • [Raw Markdown](#)

## Summary

Ryan Parman is a cloud-native engineering leader with over 25 years of experience, who specializes in technical leadership, software development, site reliability engineering, and cybersecurity for the modern web. A seasoned problem-solver who excels at listening, adapting, and driving continuous improvement. Committed to delivering exceptional work, building impactful solutions, and elevating team performance.

## Work Experience

Older roles are truncated for brevity. If interested, details can be found [on GitHub](#).

### [McGraw Hill](#) — Remote (since COVID), previously Seattle, WA

#### Principal Engineer, Cloud Center of Excellence (January 2024—October 2024)

- Assumed a role influencing the technical direction of the entire organization. Ensured a focus on real-world, actionable feedback and provided strategic direction aligned with practical needs.
- Continued to be involved in the oversight and direction of our AWS stack, security, guardrails, and more.
- Identified opportunities to extend the security measures and guardrails developed for AWS to other cloud platforms.

#### Principal Cloud and Platform Engineer (June 2020—January 2024)

- Transitioned from Engineering Manager to a strategic technical leadership role.
- Either directly or collaboratively designed and maintained [AWS Control Tower](#), [Artifactory](#), [GitHub Enterprise](#), [GitHub Actions](#), [CircleCI](#), [Jenkins](#), and more.
- Partnered with McGraw Hill Enterprise Architecture and [AWS Professional Services](#) to deploy [AWS Control Tower](#) and [AWS Identity Center](#). Lowered costs and increased control over account guardrails.
- Managed the program for building and maintaining base AMLs for all of McGraw Hill. Leveraged insights from the [Center of Internet Security](#), security patching, and the specific needs of internal customers to develop a unified build pipeline integrating best practices.
- Using [AWS SDKs](#), conducted comprehensive scans of Route 53 to obtain a mapping of thousands of active websites owned by McGraw Hill. Focused on identifying and remediating misconfigurations, rotating certificates, and more.
- Co-implemented self-hosted runners for GitHub Actions. Focused on the Linux runtime environment.
- Rebuilt our [Artifactory](#) cluster with a "cattle, not pets" approach. Ran the project from inception to completion, including the majority of development. Worked across dozens of teams and hundreds of services to complete the project.
- Enabled continuous token and password rotation for our engineering teams by building a *Token Vending Machine*, providing a "push-button, receive-token" solution.
- Proactively added support for lower-cost ARM64 CPUs, opening the door for ~\$450k/year in cost savings.

#### Engineering Manager, Site Reliability (October 2018—June 2020)

- Managed a team of four, while working to level-up the team's technical skills and leadership capabilities. Conducted regular 1:1s, performance reviews, and career development discussions.
- Led the [Site Reliability Engineering](#) (SRE) team in addressing macro-oriented problems affecting decentralized, heterogeneous engineering teams across the company. Empowered greater self-service for engineering teams.
- Revamped the Seattle SRE interview process to prioritize a 70/30 focus on software engineering (Dev) and systems operations (Ops). Emphasized leadership qualities, bias for action, and high curiosity.
- Owned and served as the key decision-maker in development of a core platform for company-wide, reliability-focused projects.

- Formed and led a leadership group to establish a process maintaining reusable Terraform modules which could be composed together according to a service's needs.
- Customized the Amazon Linux AMIs to comply with Level-2 [CIS](#) Guidelines for both Amazon Linux and [Docker](#). Collaborated closely with cybersecurity, operations, and various business units to ensure compliance.
- Developed custom security and operational tooling where off-the-shelf tools wouldn't give us what we needed, to understand the current posture of ±200 AWS accounts.
- Reduced the time to deploy a new service from dozens of weeks to a single meeting by implementing a *Monitoring-as-Code* methodology, and defining broad-use [Service Level Objectives](#) (SLOs).

## Staff Software Engineer (October 2016—October 2018)

- Led the development of multiple Tier-1 services within the educational content authoring pipeline, leveraging technologies such as [REST](#), [GraphQL](#), API design, [Amazon ECS](#), [Docker](#), [Terraform](#), [ePubs](#), and security best practices.
- Provided the technical direction of these projects, promoted their adoption across the organization, provided comprehensive documentation, and offered ongoing guidance on adoption.
- Led the development of the authoring component of [McGraw Hill's SmartBook 2.0 product](#), and the internal system which indexes authored content, builds ePubs, and encodes images/video for McGraw Hill's ePub CDN.
- Introduced the adoption of continuous integration (CI), continuous delivery (CD), rapid deployment practices, and Docker containers.
- Introduced a more hands-on monitoring approach, enabling development teams to actively engage in their own operations. Achieved significantly lower *Mean Time to Recovery* (MTTR).
- Served as a core resource in adopting *Infrastructure-as-Code* (IaC) tools such as [Terraform](#) and [Packer](#).

## [WePay](#) — Redwood City, CA

### DevOps Engineer (April 2015—September 2016)

- Led a cross-company initiative to upgrade the monolithic application from PHP 5.4 to PHP 5.6 (the latest at the time). Facilitated cross-team collaboration among all major engineering teams and QA departments in order to achieve results.
- Initiated a program to automate the creation of base server images for our cloud servers. They allowed new servers to boot and begin serving traffic ~75% faster.
- Began investigating ways to implement *configuration-as-code* for our cloud infrastructure.

### Senior API Engineer (April 2014—April 2015)

- Took the lead on the company's [HackerOne](#) program, coordinating across teams to address security issues.
- Built a development environment for engineering teams. Reduced new engineer onboarding time from 2 weeks → 1 day.
- Instrumental in designing WePay's MFA-as-a-Service offering. (U.S. patent filing [US15042104](#))
- Developed new API endpoints to help expand WePay's business and support its partners.

## [Amazon Web Services](#) — Seattle, WA

### Web Development Engineer II (March 2010—April 2014)

- AWS hard-forked my open-source *CloudFusion* project into the [AWS SDK for PHP](#), then hired me to work on it.
- Collaborated with the [AWS Elastic Beanstalk](#) team to provide PHP support for the platform, which launched in March 2012.
- Played a key role in the creation and development of the [AWS SDK for PHP](#) v2, incorporating significant changes in the PHP language and community since CloudFusion was first written in 2005.
- Collaborated with the AWS Design team on the [AWS Management Console](#), to build a robust and user-friendly console. Led one of the first teams to provide reusable UI building blocks at AWS.
- Focusing on Amazon's *Customer Obsession* leadership principle, I successfully pushed for being better stewards of our community. Included increased transparency, better communication, and improved tooling for developers. [\[Examples\]](#)

## Projects

Proof that I can code, call APIs, interact with SDKs, and build user-facing software. I have live-coding anxiety, so live-coding interviews will always present me at my worst, not my best.

- **DevSec Tools:** Building a [website](#), [CLI tool](#), and [Go library](#) for helping developers identify potential web security configuration issues (in-progress).
- **Custom Linux Packages:** Building a [repository of custom Linux packages](#) (in-progress).
- **CSP Evaluator:** Building a [parser and evaluator for Content Security Policy \(CSP\) directives](#) in Go (in-progress).
- **Terraform Provider:** Built a [custom provider](#) which provides a set of utility functions for use in Terraform/OpenTofu.
- **Multi-Platform Docker:** Built a [downloader for GitHub release assets](#) which simplifies building multi-platform images.
- **AWS Organization Security:** Built a [library + CLI tool](#) which simplifies the AWS pattern for multi-account organizations which they call "hub and spoke."
- **AWS Session Manager:** The terminal is the right tool for shell sessions. Built a [TUI](#) for [simplifying connections to SSM-enabled EC2 instances](#) using your Terminal.
- **Configuration for tfLint:** Built a [tool for generating up-to-date configurations for AWS/GCP/Azure](#) for use with [tfLint](#).

## Recommendations

See a [selective list of recommendations](#) from co-workers and peers.

## Groups and Accomplishments

- U.S. patent filing, ["System and Methods for User Authentication across Multiple Domains"](#) (US15042104) (2016)
- U.S. patent filing, ["Hive-based Peer-to-Peer Network"](#) (US8103870B2) (2007)
- Voting representative for AWS, [PHP Framework Interoperability Group](#) (2012–2013)

## Keywords and Skills

This list is not exhaustive, but is targeted toward the skills most relevant to Cloud Engineering, DevOps, and Site Reliability Engineering roles.

TLS and cipher suites, [ARM64](#), [AWS Control Tower](#), [AWS Elastic Beanstalk](#), [AWS Identity Center](#), [AWS Lambda](#), [AWS RDS Aurora](#), [AWS SDKs](#), [AWS Secrets Manager](#), [AWS Well-Architected](#), [Alpine Linux](#), [Amazon ACM](#), [Amazon CloudFront](#), [Amazon EC2](#), [Amazon ECS](#), [Amazon Linux](#), [Amazon Route 53](#), [Amazon S3](#), [Ansible](#), [Artifactory](#), [Bash](#), [CIS](#), [CentOS](#), [CentOS](#), [Docker](#), [EC2 Image Builder](#), [GCP](#), [GitHub Actions](#), [GitHub Enterprise](#), [Go](#), [Nginx](#), [PHP](#) (modern), [Packer](#), [Python](#), [Redis](#), [Terraform](#), [Ubuntu](#), [kubectL](#), automation, cloud configuration security, multi-platform development, operational reliability, performance, scalability.

## Education

Obtained a **Bachelor of Arts** degree in *Design and Visualization* from *Silicon Valley College* (now [Carrington College](#)) in San Jose, CA.

Graduated in *November 2003* with a **3.84** GPA.