# Ryan Parman • [[jobs@ryanparman.com](mailto:jobs@ryanparman.com)](mailto:jobs@ryanparman.com)

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

**IMPORTANT:** This résumé is optimized for *Applicant Tracking Systems*. **For interviewers:** [Web](https://github.com/skyzyx/resume/blob/master/resumes/ryanparman-general-cv.md) • [PDF](https://github.com/skyzyx/resume/raw/master/resumes/ryanparman-general-cv.pdf) • [Word](https://github.com/skyzyx/resume/raw/master/resumes/ryanparman-general-cv.docx)

## Work Experience

### [McGraw Hill](https://www.crunchbase.com/organization/mcgraw-hill-education) — Remote (since COVID), previously Seattle, WA

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

* Joined a team whose mission was to provide guidance and support in the cloud journey of the entire organization.
* Proposed best practices, guardrails, and security measures to ensure a secure and efficient cloud environment.
* Identified opportunities to extend the security measures and guardrails devised for AWS to other cloud platforms.

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

* As every school in America transitioned to online learning during the COVID-19 lockdowns, I was the technical/development lead on the team who supported all SRE and product engineering teams, working on core platforms and services.
* Authored or edited over 1,800 [Confluence](https://www.atlassian.com/software/confluence) documents.
* Partnered with Enterprise Architecture and [AWS Professional Services](https://aws.amazon.com/professional-services/) to deploy [Control Tower](https://aws.amazon.com/controltower/) and [Identity Center](https://aws.amazon.com/iam/identity-center/), resulting in lowered costs and increased control over account guardrails.
* Managed the Base [AMI](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html) program. Leveraged insights from [CIS](https://www.cisecurity.org), security patching, and internal needs to develop a unified build pipeline integrating best practices.
* Conducted comprehensive scans of [Route 53](https://aws.amazon.com/route53/) to obtain a mapping of the company’s thousands of active websites. Prioritized identifying and remediating misconfigurations, rotating certificates, and increasing visibility.
* Implemented the Linux runtime environment used by self-hosted [GitHub Actions](https://github.com/features/actions) runners.
* Spearheaded the [Artifactory](https://jfrog.com/artifactory/) Rebuild project. Ran the project from inception to completion, including the majority of development. Directed effort across ~80 teams and ~300 services to complete the project.
* Improved security by enabling continuous token and password rotation for engineering teams by building a *Token Vending Machine*.
* Resolved all technology blockers preventing migration lower-cost [ARM64](https://aws.amazon.com/ec2/graviton/) CPUs, opening the door for ~$450k/year in cost savings.
* Led dozens of smaller projects, offered guidance to engineers on best practices, and documented knowledge.

#### 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.
* Revamped the 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.
* Led the [*Site Reliability Engineering*](https://sre.google/in-conversation/) (SRE) team in addressing macro-oriented problems affecting engineering teams, empowering greater self-service.
* Established a process for maintaining reusable [Terraform](https://www.terraform.io) modules which teams leveraged to compose infrastructure with minimal effort.
* Customized the [Amazon Linux](https://aws.amazon.com/linux/) AMIs to comply with Level-2 [CIS](https://www.cisecurity.org) Guidelines for both Amazon Linux and [Docker](https://www.docker.com). Liaised with cybersecurity, operations, and business units to ensure compliance.
* Invented custom security and operational tooling to understand the current posture of ~200 AWS accounts where off-the-shelf tools did not meet the needs of the organization.
* 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](https://sre.google/sre-book/service-level-objectives/) (SLOs).

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

* Led the development of Tier-1 services within the educational content authoring pipeline, leveraging technologies such as [REST](https://martinfowler.com/articles/richardsonMaturityModel.html), [GraphQL](https://graphql.org), API design, [Amazon ECS](https://aws.amazon.com/ecs/) (similar to [Kubernetes](https://kubernetes.io)), [Docker](https://www.docker.com), [Terraform](https://www.terraform.io), [ePubs](https://www.w3.org/publishing/epub3/), and security best practices.
* Led the development of the authoring component of the [SmartBook 2.0 product](https://www.mheducation.com/news-media/press-releases/mcgraw-hill-connect-unveils-smartbook.html), and the internal system which indexes authored content, builds ePubs, and encodes images/video for the ePub CDN using [ffmpeg](https://ffmpeg.org).
* Established the technical direction of these projects, promoted adoption across the organization, published comprehensive documentation, and offered ongoing integration guidance.
* Accelerated the adoption of CI/CD, rapid deployment practices, and Docker containers, shortening the feedback loop for developers and increasing the reliability of deployments.
* Served as a core resource in adopting *Infrastructure-as-Code* (IaC) tools such as [Terraform](https://www.terraform.io) and [Packer](https://packer.io).

### [WePay](https://www.crunchbase.com/organization/wepay) — Redwood City, CA

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

* Led a cross-company initiative to upgrade the monolithic application from [PHP](https://www.php.net) 5.4 to PHP 5.6 (the latest at the time). Facilitated cross-team collaboration among all major engineering teams and QA departments to achieve results.
* Initiated a program to automate the creation of base server images for cloud servers. This allowed new servers to boot and begin serving traffic ~75% faster.
* Invested in monitoring and alerting systems to prevent customer-facing issues.
* Increased reliability and efficiency by implementing *configuration-as-code* for cloud infrastructure in [GCP](https://cloud.google.com).

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

* Led the company’s [HackerOne](https://www.hackerone.com) program, coordinating across teams to address security issues.
* Built a development environment for engineering teams. Reduced new engineer onboarding time from 2 weeks to 1 day.
* Expanded WePay’s payment security offerings by designing MFA-as-a-Service (U.S. patent filing [US15042104](https://patents.google.com/patent/US20160241536A1/en?inventor=Ryan+Parman)).

### [Amazon Web Services](https://www.crunchbase.com/organization/amazon-web-services) — Seattle, WA

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

* Created the [AWS SDK for PHP](https://aws.amazon.com/sdk-for-php/), enabled AWS to reach the largest developer group — [PHP](https://www.php.net).
* Initiated the creation of [AWS SDK for PHP](https://aws.amazon.com/sdk-for-php/) v2 to address changes in the PHP language and growth of AWS services.
* Led one of the first teams to provide reusable UI building blocks for the [AWS Management Console](https://console.aws.amazon.com), by collaborating directly with the AWS Design team.

## Skills

* **Languages:** [Bash](https://www.gnu.org/software/bash/), [Go](https://go.dev), [PHP](https://www.php.net), [Python](https://www.python.org).
* **Cloud/DevOps/SRE:** DevOps, DevSecOps, TLS and cipher suites, [ACM](https://aws.amazon.com/certificate-manager/), [ARM64](https://aws.amazon.com/ec2/graviton/), [AWS Well-Architected](https://aws.amazon.com/architecture/well-architected/), [AWS](https://aws.amazon.com), [Amazon Web Services](https://aws.amazon.com), [Ansible](https://www.redhat.com/en/technologies/management/ansible), [Artifactory](https://jfrog.com/artifactory/), [Bash](https://www.gnu.org/software/bash/), [CIS](https://www.cisecurity.org), [CentOS](https://en.wikipedia.org/wiki/CentOS), [CloudFormation](https://aws.amazon.com/cloudformation/), [CloudFront](https://aws.amazon.com/cloudfront/), [Control Tower](https://aws.amazon.com/controltower/), [Docker](https://www.docker.com), [EC2](https://aws.amazon.com/ec2/), [ECS](https://aws.amazon.com/ecs/), [GCP](https://cloud.google.com), [GitHub Actions](https://github.com/features/actions), [GitHub Enterprise](https://github.com/enterprise), [Git](https://git-scm.com), [IAM](https://aws.amazon.com/iam/), [Identity Center](https://aws.amazon.com/iam/identity-center/), [Image Builder](https://aws.amazon.com/image-builder/), [Lambda](https://aws.amazon.com/lambda/), [Nginx](https://www.nginx.com), [OpenTofu](https://opentofu.org), [Packer](https://packer.io), [RDS Aurora](https://aws.amazon.com/rds/aurora/), [Redis](https://redis.io), [Route 53](https://aws.amazon.com/route53/), [S3](https://aws.amazon.com/s3/), [SDKs](https://aws.amazon.com/developer/tools/), [Secrets Manager](https://aws.amazon.com/secrets-manager/), [Terraform](https://www.terraform.io), automation, cloud computing, cloud configuration security, computer science, database, deployment, multi-platform development, operational reliability, performance, platform, scalability, scaling, scripting, troubleshooting, virtualization.
* **SDE/SWE/DevTools:** API design, API versioning, CI/CD, CLI tools, [AWS](https://aws.amazon.com), [CircleCI](https://circleci.com/enterprise/), [Docker](https://www.docker.com), [GitHub Actions](https://github.com/features/actions), [Git](https://git-scm.com), [GraphQL](https://graphql.org), [JWT](https://jwt.io), [NFS](https://en.wikipedia.org/wiki/Network_File_System), [REST](https://martinfowler.com/articles/richardsonMaturityModel.html), [Redis](https://redis.io), [Subversion](https://subversion.apache.org), [Vagrant](https://www.vagrantup.com), [WordPress](https://wordpress.org), [XSLT](https://developer.mozilla.org/en-US/docs/Web/XSLT), [ffmpeg](https://ffmpeg.org), [twelve-factor applications](https://12factor.net), agile, architecture, authentication, authorization, automation, automation, building platforms, cloud, code generation, containerization, continuous delivery, continuous deployment, continuous integration, debugging, defensive cybersecurity, design, development, distributed, integration, microservices, multi-platform development, optimization, performance, refactoring, scalability, scrum, security, software library design, software testing, standards, tdd, technical documentation, test-driven development, testing.
* **PM/TPM:** [Confluence](https://www.atlassian.com/software/confluence), [Jira](https://www.atlassian.com/software/jira), agile, building platforms, coordination with downstream services, cross-collaboration (dozens of teams, hundreds of services), kanban, organization of complex projects, product development, product roadmap management, project documentation, project management, risk mitigation, scrum, stakeholder management, technical documentation, vendor management.

## Education

*Silicon Valley College* (now [Carrington College](http://carrington.edu/schools/san-jose-california/)), San Jose, CA. Bachelor of Arts, *Design and Visualization*