

Ryan Parman

Hi there 🙌

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

Currently: Enterprise Architect, Cloud Center of Excellence at McGraw Hill.

- <https://github.com/skyzyx>
- <https://www.linkedin.com/in/rparman/>
- <https://stackoverflow.com/users/228514/ryan-parman>
- [Shorter version of this résumé](#) (PDF download)



TIP

I have a lot of experience. My résumé is written with the intention of giving you a comprehensive understanding of my background, experience, how I think, and what it's like to work with me. This means that it's longer than other résumés. You can also get a [shorter version of my résumé](#).

Summary

Ryan Parman is a cloud-native engineering leader with a focus on reliability, scalability, and security for the modern web. As an engineering problem-solver with over 25 years of experience across technical leadership, software development, site reliability engineering, and cybersecurity, he understands how to listen, learn, adapt, and improve.

He was a founding member of the AWS SDK team; patented multifactor-authentication-as-a-service at WePay; helped define the CI, CD, and SRE disciplines at McGraw Hill; came up with the idea of "serverless, event-driven, responsive functions in the cloud" while at Amazon Web Services in 2010 (AWS Lambda); and much, much more.

Ryan has been building things for the web since 1998. He's lived through the browser wars (both of them), has worked on multiple high-profile projects, and has maintained server clusters powering hundreds of millions of dollars-worth of transactions. He has experience with early-stage startups, SMBs, Fortune 500s, and heavily-used open-source projects. He has lots of experience working across large distributed teams to get projects completed.

- Has experience taking the long-view on things that people might not understand today, but that will matter in the future. This might mean being misunderstood for long periods of time.
- Understands that "perfect" is the enemy of "done", but conversely that "[we must not ship crap](#)."
- Understands that the "minimum *usable* product" of a motorcycle isn't the chrome wheels or a nice chassis, but a tricycle.
- When it comes to software, there is *no such thing* as "if it ain't broke, don't fix it." Software that is not maintained falls into bit-rot, and becomes more expensive to fix later than if you'd simply maintained it as you went along.
- We all rise and fall together. Ryan places emphasis on tearing down walls between departments or divisions so that we can work better together. His experience spans across UX, development, operations, and cybersecurity — as an individual contributor, an engineering manager, and a technical/thought leader.

- He excels in teams that care about the customer or end-user, and wants to make things better tomorrow than they are today. He excels in teams where he is given the latitude to make decisions and work across teams to deliver the best possible customer experience.
- About automation: "Let the robots do what the robots are good at, so that humans can focus on doing the things that humans are good at."
- About people who are frustrating to work with: "You can't change anybody else but yourself. Expecting other people to change just because you want them to is a recipe for perpetual disappointment. But you can choose to change how you look at this person/situation."
- About most things: "There are things that matter, and there are things that really, really don't. Focus on the things that actually matter, and stop wasting your time and energy on the things that don't."

Technical Skills and Software

While my experience and personal technical interests are broad, the following list is focused more on my interest in DevTools, DevOps, and SRE roles. I would be happy to share additional experience for other areas upon request.

NOTE

Each entry here has a *current* proficiency level (scale: Low, Med, High, Expert), as well as a directional arrow. An up-arrow (↑) means I'm actively working with them and my proficiency is likely to go **up** over time. A down-arrow (↓) means it's been a while since I've worked with it, and my proficiency is likely to go **down** over time unless I get a good refresher course.

- **Operating Systems:** [macOS](#) (Expert: ↑), [CentOS Linux](#) (High: ↓), [Amazon Linux 2](#) (High: ↓), [Amazon Linux 2023](#) (High: ↑), [Alpine Linux](#) (High: ↑), [Windows](#) (Med), [Ubuntu Linux](#) (Med: ↑).
- **Standard Software Engineering Toolbox:** Dependency injection, performance profiling, character encodings, [Git](#), Linux, Makefiles, and other fundamentals (High: ↑); memorized algorithms (Low); memorized Big-O notation (Low; I never learned it formally).
- **Programming Languages:** [Golang](#) (High: ↑), [Python](#) (High: ↑), [Bash](#) (High: ↑), [Modern PHP](#) (High: ↓) (not the bad old PHP that everyone hates), Browser [JavaScript](#) (High: ↓), [Node.js](#) JavaScript (Medium: ↓), [Ruby](#) (Low: ↓). Starting to learn [Swift](#), but am just scratching the surface.
- **Cloud Computing:** [AWS](#) (Organizations, EC2, RDS, S3, CloudFront, SQS, SNS, IAM, STS, CloudWatch Monitoring, CloudWatch Logs + Insights, Lambda, ECS-on-EC2, ECR, API Gateway, Auto-scaling, CloudTrail, Elastic Transcoder, ElastiCache, Route 53, ELB/ALB, ACM, SSM, Parameter Store) (mostly High/Expert: ↑), [AWS SDKs + CLI](#) (High: ↑), [AWS Well-Architected Framework](#) (High: ↑); [Google Cloud](#)'s core infrastructure services (Low: ↓), [Microsoft Azure](#) (None: ↑)
- **Provisioning:** [Terraform/OpenTofu](#) (Expert: ↑), [Terragrunt](#) (Med/High: ↑), [Packer](#) (High), [Ansible](#) (Med: ↓), [Vagrant](#) (Med: ↓), writing custom [Modules](#) (Expert: ↑), writing custom [providers](#) with the [Plugin Framework](#) (Med: ↑).
- **API and Scalable System Design:** Understanding and designing highly-scalable, distributed systems for running web applications and web services (High: ↑); JSON-over-HTTP web service API design (High); [GraphQL](#) with [Relay](#) implementations (Med/High: ↑); Understand the difference between [micro-service vs a "distributed monolith"](#) (High: ↑); [OpenAPI](#) (née Swagger) (Med); [JSON Schema](#) (High: ↑); [gRPC](#) (Low: ↑); [12-factor design](#) (High: ↑); [Ent](#) (Med: ↑).
- **Containers and Orchestration:** [Docker](#) (High: ↑), [Amazon ECS](#) (High: ↓); [Kubernetes](#) (Low: ↑).

- **Enterprise Services:** [Artifactory](#) (Expert: ↑), [Jira](#) (High: ↑), [Confluence](#) (High: ↑), [GitHub Enterprise](#) (High: ↑), [GitHub](#) (High: ↑), [Pingdom](#) (Med: ↓), [New Relic](#) (Med: ↑), [Datadog](#) (Med: ↓), [Papertrail](#) (Med: ↓), [Slack](#) (High: ↑), [PagerDuty](#) (High: ↑).
- **Databases & Key-Value/Document stores:** [MySQL](#) (Med: ↑), [Redis](#) (High: ↓), [PostgreSQL](#) (Med: ↑), [Memcache](#) (Low: ↓), [Atlas](#) (Low: ↑).
- **Metrics, Traces, and Logs:** [OpenTelemetry](#) (Med: ↑), [New Relic](#) (Med: ↑), [Datadog](#) (Med: ↓), [Jaeger](#) (Low: ↑).
- **Metadata and Config Formats:** [RDFa](#), [Dublin Core](#), [FOAF](#), [OpenSearch](#), [JSON-LD](#), [Microformats](#), [RSS](#), [Atom \(RFC 4287\)](#), [JSON](#), [YAML](#), [TOML](#), [XML](#), [HCL](#), [Schema.org](#), [Open Graph](#).

Work Experience & Notable Projects

[Northwood Labs](#) — Colorado

Owner (January 2024—Present)

Northwood Labs is an incubator for security and reliability tooling. (Presently a *side-hustle*, not a full-time gig.)

It is a tiny company based in Colorado who thinks that software engineering, site reliability, operations, and cybersecurity are all parts of the same whole. We want to empower teams to build quality software and reliable services, teach where there are knowledge gaps, and make it possible for every user to have access to the best in security.

Historically, most of the tools built to address these areas have done a poor job of integrating across all relevant disciplines, and can also cost a small fortune in order to help teams ensure their products and services are well-built, reliable, and secure.

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

Enterprise Architect, Cloud Center of Excellence (January 2024—October 2024)

Moved into a position that touched the technical direction for the entire organization. Worked closely with the other members of the *Cloud Center of Excellence*, Reliability Engineering, Cybersecurity, Networking, and AppDev Engineers to ensure that we avoided "Ivory Tower Syndrome" and focused on real-world, actionable feedback and direction.

- **Documentation and Training:** Continued to ensure that people could continue to learn about new topics without requiring any specific human to become a bottleneck.
- **AWS Organizations and Control Tower:** Continued to be involved in the oversight and direction of our AWS stack, security, guardrails, and more.
- **Cross-Cloud Collaboration:** Began working alongside my peers focusing on Microsoft Azure and Oracle Cloud Infrastructure clouds. Developed my understanding of our cloud fabric which allowed high-performance networking across clouds. Worked to identify opportunities for bringing the security and guardrails that we'd developed for AWS to the other clouds, as well as train my peers on effective use of Terraform for cloud management.
- **Shifting Cloud Practices Left:** Began an ambitious, multi-year project with a high-level intention of giving us cross-cloud visibility, reporting and scoring of our cloud accounts against a list of best practices, making that data visible to everyone in the company — namely engineers performing development, and pushing that data left with the goal of getting it into developer's IDEs. This would help prevent bad practices from being used in the first place, help engineers identify where bad practices have been used in the past, and educate developers on how to build more secure and operationally excellent software. Allowed us to also view trends and changes over time to understand if

operationally-excellent software. Allows us to also view trends and changes over time to understand if we're getting better or worse across our hundreds of cloud accounts.

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

Continuing the work I led as an engineering manager, I migrated into a more strategic role around the projects where I had started as the creator, initiator, primary developer — planning the path of the products and how they wove into the larger tapestry of our highly-heterogenous application ecosystem which had grown by way of acquisition over the years. With no longer having direct reports, I was able to focus on *technical leadership* without the responsibility of *human management*.

- **Documentation:** Prolific documentarian. Documentation is worth 50% of your grade.
- **Reliability Platform:** Products that I had personally pioneered (ECS-optimized Base AMI, Prism, Monitoring-as-Code, Terraform modules) became core pieces of our "reliability platform" alongside off-the-shelf software/services such as [AWS Control Tower](#), [Artifactory](#), [GitHub Enterprise](#), [GitHub Actions](#), [Circle CI Enterprise](#), [Jenkins](#), and more.
- **Control Tower:** 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. Enabled automated provisioning of new accounts, and developed smoke tests as a post-provisioning validation step.
- **Clarity in Complexity:** Collaborated on the [Guardrails](#) (mandatory + custom) deployed across all AWS account *organizational units* (OUs). These were written as CloudFormation YAML, Python, and Bash scripts. In such a large complex, project, it's easy for the code to become obtuse and difficult to trace. Worked with my team to make sure we understood the fine details of the implementation, then implemented Lambda functions and CI code to read certain changes in Git commits to master/main and generate README/Confluence documentation with directed graphs and charts generated from DOT documents, to make the workflows and details easier to understand visually.
- **Base AMI program** Took what we'd learned about [Packer](#), [CIS Benchmarks](#), security patching, and the needs of a particular AMI's audience to develop a single build pipeline which brought the best ideas together — automatic dev builds with unit/integration testing on Git commit, production builds with complete package indexing on Git tag, pre-installing and pre-configuring agents for metrics and cybersecurity, automated security analysis scanning, making the Base AMIs available to all ±200 AWS accounts, rotating the hosts to use the new AMI with zero downtime. Adopted EC2 ImageBuilder and automated AMI rotations in the process.
- **Streamlining:** Combined elements of Terraform, Monitoring-as-Code, Base AMIs, and our custom security tooling to empower application teams to bring a Docker image with a small amount of configuration and deploy it to one of our Amazon ECS clusters with best practices, infrastructure monitoring, and operational tooling built-in, lowering overall costs.
- **Preventative automation:** Scanned Route 53 and other DNS providers to obtain a mapping of our thousands of active websites. Leveraged highly-concurrent, scalable bots to fetch certificate data from each endpoint. Enabled faster rotation for expiring datacenter certs by knowing both WHICH certs and WHERE they were installed. Verified the required DNS records for self-rotating *Amazon Certificate Manager* certs.
- **Prism:** Developed custom security and operational tooling where off-the-shelf tools wouldn't give us what we needed. Solution involved highly concurrent and dynamically-scalable nodes that would scan the AWS APIs to understand the current posture of ±200 AWS accounts. Made the data transparent to ALL engineers, enabling teams to be involved in improving their infrastructure stacks.
- **Self-hosted GitHub Actions runners:** Team adopted Amazon EKS and [summerwind/actions-runner](#) to deploy self-hosted runners for GitHub Actions in our GitHub Enterprise environment. Wrote

smoke tests which ran every hour to validate the GitHub Actions runner environment, as well as the actions we'd imported into GitHub Enterprise for internal developers to use. This provided both increased visibility as well as a working example of how to leverage the actions effectively.

- **Automation for Artifactory:** Rebuilt our Artifactory cluster with a "cattle, not pets" approach. Dedicated Base AMI, rotated monthly. Migrated artifacts from NFS to S3. Rewrote configuration in Terraform instead of by-hand. Moved service-user management into Terraform. This automation reduced the amount of human error in the process, improved our security posture, and increased consistency leading to a better developer experience.
- **Custom Packages:** Worked to streamline the developer experience by moving all disparate Amazon ECR Docker image repositories into Artifactory. Worked to reduce the time to build VMs and Docker images by identifying the common software people were manually installing, and began packaging them as pre-compiled `.rpm`, `.deb`, and `.apk` (Alpine Linux) packages that could be installed from Artifactory through the system's built-in package management system. Faster builds with better reliability and reduction of the ["left-pad" problem](#).
- **Token Vending Machine:** Built a Token Vending Machine to enable continuous token/password rotation for our engineering teams. "Push button, receive token." Solution leveraged Secrets Manager, Lambda, KMS, IAM policies, and some custom CLI software written in Go. First integration was for service-users (robots) in Artifactory.
- **Training and Education:** Worked to develop the SysAdmin "button pushers" on my teams into more well-rounded software engineers who could automate more reliably. Continued to push to *raise the bar* in the quality of our team. When SysAdmins left the company, worked to hire *true* SREs to fill their spots.
- **ARM64 Adoption:** When Apple announced ARM64-based *Apple silicon* Macs in November 2020, it became obvious to me that ARM64 was going to play a large role in our future. I began chipping-away at the places where Intel x86_64 was *assumed*, updating our custom package build pipeline for ARM64, adding ARM64 runners for GitHub Actions, adding ARM64 parity in Artifactory for the remote repositories we were proxying, writing tutorials and hands-on documentation for using Docker BuildKit to produce multi-platform container images, and more. When the company began seriously considering AWS Graviton (ARM64) CPUs for cost reasons, all of the pieces for adoption were already in-place. This also addressed issues faced by multi-platform development teams (Intel Macs + Apple silicon Macs).

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

Owned, and was the key decision-maker for the [development of a core platform](#) of company-wide, reliability-oriented projects. With our development teams moving toward [Full-Cycle Development](#), our SRE team focused on solving more macro-oriented problems which affected more than 75 decentralized, heterogeneous engineering teams across the company. These projects have empowered greater self-service for engineering teams, enabling them to move faster without having to reinvent the wheel.

Many of the following projects got their start in my work as an application engineer for McGraw Hill, and carried over into this role.

- **ECS-optimized Amazon Linux Base AMI** for all Amazon ECS applications. Modified the version vended by AWS to meet Level-2 CIS Guidelines for both Amazon Linux and Docker. Underwent deep collaboration with security, operations, and various business units to ensure compliance. Achieved high levels of opt-in adoption, which gave security and operations orgs higher levels of confidence in the product development teams.
- **Prism** which is an "executive dashboard" enabling significantly improved visibility into the security and operational configurations of our AWS accounts (hundreds). Enables visibility to Engineering Managers, Directors, VPs, and the CTO, while also providing clear instructions to app engineers to

understand why the configuration is incorrect and what needs to be done to resolve the issue.

- **Monitoring-as-Code** which leverages Terraform and Python to streamline the process of generating and maintaining dashboards and monitors in Datadog and New Relic across a large, heterogeneous swath of applications. Trained development teams in adopting "full-cycle" development practices where the development team owns day-to-day operations of their services including deployments, support, and on-call rotations.
- Formed a leadership group to develop a more rigorous process for developing, patching, vending, and maintaining re-usable **Terraform modules** that are used by large numbers of product development teams across the company. Standardized their development, contribution, and usage guidelines, adopted an Apache-style "incubator" for developing new modules, and adopted a process for shipping LTS-style packages of modules.
- Took over engineering management responsibilities for the **Site Reliability** group in MHE's Seattle office. Worked to integrate our office better with the larger, developing SRE practice across all offices across the U.S. Joined the SRE leadership group to help guide and participate in the development of better processes around reliability, which we then worked with product development teams to adopt and apply.
- Rebooted our Seattle SRE **interview process**, with a much higher focus on identifying high-quality engineers with a 70/30 split between software engineering (Dev) and systems engineering (Ops), and who were more *leaders* than not. Integrated many ideas and *leadership principles* from my time working at AWS.
- Adopted a more integrated, [SRE-style](#) of working alongside development teams, and (mostly) ended the practice of dev teams "tossing things over the fence" to some Ops team in the parts of the org that the Seattle SRE team supported.

Staff Software Engineer (October 2016—October 2018)

Ryan led the development of multiple tier-1 services as part of the educational content authoring pipeline, leveraging REST, GraphQL, API design, AWS, Amazon ECS, Docker, Terraform, ePubs, and security best practices. Led the technical direction of the projects, socialized them, documented them, and provided

ongoing guidance around their design and use.

- Lead 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.
- Kickstarted the use of continuous integration, continuous delivery, rapid deployments, Docker containers, and "dog-fooding" newer processes which allowed deployments that were both more frequent and more reliable.
- Introduced a more hands-on monitoring style, enabling dev teams to be more actively engaged in their own operations instead of relying exclusively on an external, third-party vendor used by other groups in the company. Empowered significantly-lower MTTR during incidents, tracking app-level metrics, and the introduction of KPIs.
- A member of the core team that was migrating all new infrastructure to "Infrastructure-as-Code" tooling such as Terraform, Packer, etc. Identified patterns across applications, and began the effort to streamline infrastructure maintenance with shared, re-usable Terraform modules.

Perimeter of Wisdom, LLC

Co-Owner, CTO, Producer (February 2015—2018)

On the technical side, Ryan built the entire “The First-Time Offender’s Guide to Freedom” website, soup to nuts. Ryan also performed all of the production work on the eBook, authored by E. M. Baird.

- Leveraged modern tools to build the front-end, including Bootstrap, LESS, JavaScript, Gulp.js, npm, Bower. Ryan built the back-end in PHP 5.6, using HHVM and Nginx, MySQL, Redis, Slim Framework, Monolog, Pimple, Twig, Guzzle, Doctrine, Phinx, and Symfony components. Ryan deployed the application using Ansible, and developed the application in a Vagrant environment running Ubuntu.
- Runs the unit, integration and functional tests using PHPUnit, Behat, Mink, and Selenium. Ryan leverages Amazon SES for sending email, Amazon S3 for static file storage, Stripe for payment processing, Linode for web hosting, MaxMind IP-based geolocation, and Google Books and Dropbox for ensuring that customers always have the latest errata fixes.

[WePay](#) — Redwood City, CA

DevOps Engineer (April 2015—September 2016)

- Improved how WePay provisioned cloud infrastructure, deployed updates, managed security patches, monitored applications and infrastructure, and streamlined the process of planning, developing, deploying and maintaining new micro-services throughout the company.
- Led the cross-company effort to upgrade the monolithic application’s software stack from PHP 5.4 to PHP 5.6. This required cross-team collaboration across all of the major engineering teams, QA, and replacing over 200 servers across multiple environments with zero customer-facing downtime.
- Maintainer of multiple tier-1 systems including Artifactory, GitHub Enterprise, Toran Proxy and Phabricator.

Senior API Engineer (April 2014—April 2015)

- Developed new API endpoints to help expand WePay’s business and support its partners.
- Was instrumental in designing/developing WePay’s MFA-as-a-Service offering (“[System and Methods for User Authentication across Multiple Domains](#)” (US15042104; Pending)).
- Heavily involved in the security of WePay’s products, coordinating fixes with teams against other priorities, and fixing the issues himself in many cases.

[Amazon](#) — Seattle, WA

Web Development Engineer II, Amazon Web Services (March 2010—April 2014)

- Amazon hard-forked my open-source CloudFusion project into the [AWS SDK for PHP](#), and hired me to work on the fork. Invested heavily in supporting the needs of developers by taking the time to listen and understand the needs of developers, and remained involved in PHP-related industry groups on behalf of AWS.
- Worked with the [AWS Elastic Beanstalk](#) team to provide PHP support for the platform (launched March 2012). In addition to working with the PHP community to determine the configuration for a PHP container that would fit the greatest number of developers, he developed a rigorous internal test suite for testing containers which has been used as the basis for testing by other language-specific teams. He also had early input on adding support for `git push` deployments.
- He was heavily involved in the creation and development of the [AWS SDK for PHP 2](#), which took into account the numerous changes in the PHP language and community since Tarzan/CloudFusion was first written in 2005 (launched November 2012).

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- Worked with the AWS Design team on the [AWS Management Console](#), where he lent his experience as a web developer and software engineer to bridge the gap between the design and engineering disciplines in an effort to build a high-quality, robust, user-friendly console for interacting with Amazon Web Services.

Less technical, more cultural achievements:

- Successfully pushed for an SDK for both web browsers and Node.js.
- Successfully pushed for AWS development blogs and Twitter accounts, which were previously *prohibited*.
- Successfully pushed for publishing AWS SDKs on GitHub, which was previously *prohibited*.
- Successfully pushed for open-sourcing SDKs with the Apache 2.0 license instead of the (non-OSS) Amazon Standard License, which was previously *prohibited*.
- Successfully pushed for the development of non-secret SDK improvements to happen in the open, which was previously *prohibited*.
- Successfully pushed for the ability for AWS employees to answer questions on StackOverflow, which was previously *prohibited*.
- Successfully pushed for the underlying AWS service models to be exposed to end-users, the same service models that the SDKs were built from, which was previously *prohibited*.
- Successfully pushed for <https://github.com/aws/aws-lambda> to exist as a place for *unofficial* AWS projects.
- Invented the idea of "waiter" functions that are now commonplace in the AWS SDKs and AWS CLI.
- Successfully got the Console, SDK, and Development Tools teams to stop using the same sets of AWS root credentials across the entire organization.
- Spent 3 years pitching the idea behind AWS Lambda to anyone at AWS who would listen. AWS Lambda launched 6 months after leaving.
- Led one of the first teams to provide reusable UI building blocks for creating AWS service consoles. This was in the Bootstrap-like era of AWS Consoles.
- Unsuccessfully pushed for a drag-and-drop UI that could enable end-users to more easily write CloudFormation templates.
- Unsuccessfully pushed for more complex "sample apps" to be written that would show best practices for using SDKs and AWS services, instead of the unhelpful "hello world" ones that shipped for many years.
- Unsuccessfully pushed for better consistency across AWS service APIs and service-specific AWS consoles.

CloudFusion (née Tarzan) — Open-Source Project

Creator and Developer (Early 2005—March 2010)

- CloudFusion was a fast, powerful PHP toolkit for building awesome, cloud-based web applications in a fraction of the time! Design decisions were made in the best interests of performance, ease of use, and overall usability. Goals were to provide a high-performance developer toolkit for leveraging Amazon's cloud infrastructure, to grow the community, and to build useful user-centric apps based on the toolkit.
- Amazon Web Services hired me to fork this project in 2010. It became the AWS SDK for PHP.

Rearden Commerce (now [Deem](#)) — Foster City, CA

Senior User Experience Developer (July 2008—March 2010)

- Supported the user experience team, Java developers, and widget development teams. This involved prototyping new features, integration of those new features, migrating JavaScript code from older frameworks to [YUI](#), and educating other teams on the value of high-quality front-end code — all while

placing a huge emphasis on writing front-end code with better performance, faster load times, and improved accessibility across the board.

[WarpShare](#) — Morgan Hill, CA

Co-Founder and Chief Information Officer (September 2006—March 2010)

WarpShare was working to bridge the gap between digital piracy and the economics of the RIAA/MPAA industry groups. Our desire was to support musical artists and copyright holders by finding ways to earn value from piracy. We knew that piracy could never be stopped, and we saw the MPAA and RIAA failing in their attempts to prevent piracy.

Some things that happened later that either proved our premises true or false:

- We developed a P2P protocol that was more efficient than BitTorrent called CleerPeer (["Hive-based Peer-to-Peer Network"](#) (US8103870B2)). BitTorrent Pro solved many of the performance/efficiency issues in the original BitTorrent protocol that we had solved with our new protocol. [BitTorrent Inc.](#) is still struggling to monetize the protocol.
- [IPFS](#) is a technology that empowers P2P-based delivery of digital content. This is the realization of one of the ideas we had for our next-gen transfer protocol.
- We were looking into ML-powered content identification, which has has proven "successful" by the companies who employ it (e.g., YouTube).
- We designed and began development on a [social network focused around digital media](#), and "gamification" around tagging and improving content (over automated data sources). People love keeping track of music, movies, and TV shows, discovering more things like it, and sharing with friends (e.g., GetGlue (acquired by Yahoo), Letterboxd, IMDb, Trakt.tv, Plex).
- We attempted a business model where users and companies could support/sponsor content by interacting with advertising that designed to be a part of the media experience, instead of interrupting your media experience in the way that was popular at the time, and that YouTube *still* does with their pre-roll/mid-roll advertisements.

NOTE

Apple attempted many of the very same ideas we had about advertising with their [iAd service](#), which tried to turn advertising into more of an "experience". Apple failed. Conversely, *sponsorships* were a relatively new idea at the time, but has grown on to significant success on Facebook, Instagram, TikTok, and other services with "influencers".

- By interacting/engaging with the content-targeted advertising, advertisers would *sponsor* the download, paying the 99¢ per song that we would hold in escrow (this was similar to, but not the same as, the failed business model for [Readability](#), which came later). One of the key differences between WarpShare and Readability's business model was that although both services were designed to collect money on behalf of the copyright owner, Readability intended to keep any forfeiture due to the lack of a deal, WarpShare's plan (not vetted by a lawyer) was to give the money away to charity. Regardless, there was a public backlash to Readability's model, and they shut down after a few years.
- Failed because: team was too small; team lacked the required expertise in advertising; team lacked the required expertise in machine learning; funding dried up as the US entered the *credit crisis* from 2007–2009; tried to do too much up-front; early mistakes spending money on *starting a company* instead of developing a consumer product.

[SimplePie](#) — Open-Source Project

Creator and Co-Developer (July 2004—October 2009), contributor (ongoing)

- Ryan is the creator, evangelist, and co-developer of the SimplePie project — a PHP library that enables web developers to simply and easily integrate news feeds into their websites and web applications.
- After recruiting additional development resources in June 2005, Ryan began to shift from a primarily development-focused role to a primarily people-focused role, where he currently works to ensure that people are aware of, and can easily use SimplePie through support, documentation, tutorials, plugins, and evangelism.
- SimplePie was integrated into WordPress, Drupal, MODx, and several other large projects written in PHP. If you've ever used WordPress since 2006, you've used SimplePie with or without knowing it.

[Self-Employed](#)

Consulting and development services (2007—2009)

- As a freelance developer, Ryan leverages a deep understanding of best practices in front-end development, layout and design, information architecture, usability, accessibility, and web culture to provide value to clients. He provides guidance to people and teams about how to maintain best practices after the project ends.
- Took on various gigs to stay afloat when WarpShare was broke during the credit crisis.

[Yahoo!](#) — Sunnyvale, CA

Front-end Developer (Contract), Yahoo! Messenger (November 2007—January 2008)

- Ryan lead the front-end development of the Spring 2008 re-launch of the Yahoo! Messenger website. He collaborated with a core team of developers to provide increased usability, accessibility, organic search engine optimization (SEO), and simplified maintenance, resulting in exceptionally tuned performance for 29 locales.
- Ryan was involved in tuning the front-end stack for performance, where they employed semantically valid HTML/CSS, caching, gzipping, image spriting, code minification, and reduced HTTP requests, resulting in exceptional performance.

[Stryker](#) — San Jose, CA

User Interface Developer (Contract; May 2005—September 2006)

- Ryan was a core member of the team tasked with re-building the company intranet site around Oracle Portal. His time was spent writing and discussing functional and technical documentation, conducting usability interviews, and creating a fresh UI that employed user-centered design principles, web standards, and fancy new AJAX tech.
- Ryan was also a member of the Endora Marketing Team, which was geared towards spreading information about the company's move to Oracle's ERP software. In that capacity, Ryan maintained the Endora website, wrote numerous articles for the monthly newsletter, interviewed project leads, and created fun little ERP-related polls to help drive interest in the project.
- Ryan worked with the eBusiness team to improve maintenance and development for the UI of the GlobalSource project. He also re-engineered the Stryker Endoscopy public site to follow modern web standards, and built a PHP-based templating system for the site that significantly sped up development.

Digital Impact — San Mateo, CA

Production Specialist (March 2004—April 2005)

- Ryan coordinated with Campaign Managers on email campaign integration, with responsibility for email content and change requests, and ensuring that the content format was consistent with client requirements. He performed the quality tracking and reporting of campaign integration-related metrics, and consulted and troubleshooted on text and HTML templates.
- Ryan maintained HTML code guidelines, provided optimal design and processing, and provided suggestions for strategic and process improvements. He also acted as syndication expert for the internal RSS development team.
- Ryan's client experience included Banana Republic, SBC (now AT&T), Hewlett Packard (HP), Sony Style, Lexus, MAC Make-up.

NOTE

Earlier experience from before I graduated college is available upon request.

Recommendations

A full list of recommendations can be found on my [LinkedIn profile](#). Here are a few of my favorites.

[Chinmay Tripathi](#)

Sr. Director of Engineering, McGraw Hill

I had the pleasure of working with Ryan and managing him directly, and I can confidently say he's one of the most talented and adaptable engineers I've come across. His technical skills are truly impressive. Whether it's tackling complex challenges, designing smart solutions, or digging into the details of a project, Ryan consistently delivers top-notch results.

What really makes Ryan stand out isn't just his technical abilities, but how easily he collaborates with others, mentors his teammates, and handles problems with a calm, practical approach. He brings a unique mix of creativity, precision, and strategic thinking that helps him approach every project with efficiency and finesse.

In every project we worked on together, Ryan showed a knack for thinking outside the box while still staying grounded in solid engineering practices. His strong work ethic, passion for innovation, and constant drive to push the envelope make him an invaluable team member.

I can't recommend Ryan highly enough for any role that needs top-tier engineering talent and leadership. Any company would be lucky to have him!

[Stephanie Lignelli \(Curatola\), CISSP](#)

Senior Cybersecurity Engineer, McGraw Hill

I had the pleasure of working with Ryan at McGraw Hill, where he demonstrated exceptional skills in ensuring the reliability, scalability, and efficiency of our IT infrastructure in the AWS cloud. I highly recommend him as he has a deep understanding of Security and has a proactive approach to identifying potential issues before they impact the user experience, this has been invaluable to the team.

[Kevin Mesia](#)

Lead Full Stack Engineer, McGraw Hill

Lead Full Stack Engineer, McGraw-Hill

Ryan is an exceptionally talented engineer and an influential leader. He is one of those rare software professionals with an insatiable drive to invent, not just write code.

I've seen Ryan do everything from introducing countless proofs of concept that push organizations toward early adoption, driving industry competitiveness, to mentoring junior engineers on the simplest development tasks.

If you're reading this because you're considering him for your organization, stop reading and hire him immediately.

[Miroslav Ladan](#)

Sr. Director of Software Engineering, McGraw Hill

Ryan, you are [...] what I call "renaissance engineer", the kind whose interests extend beyond their role and who want to understand and be involved in every part of the engineering spectrum. You challenge my thinking on an ongoing basis, you inform my strategies and you craft solutions that can be used beyond the [team's] field of responsibility. [...]

You don't pull solutions out of your back pocket, but you look at data and let data inform your decisions. [...] Also, you've shown flexibility and changed direction when needed. You and I mostly agree [about a topic]. You have demonstrated willingness to help in such cases.

As grateful as I am for the previous year, I am even more excited about the year to come. You have a great foundation to build on. [...] I'd like you to be in the business of making others motivated to continue learning and do great work. I'd like you to continue coaching and mentoring and leading from behind. 2020 will present a lot of opportunities for your growth in this regard.

[Will Curran](#)

Head of Developer Metrics and Insights, Google Cloud Platform

"Ryan is one of the most customer focused individuals I have worked with. He takes great pride in his work and is constantly evaluating how to improve the end user experience. He backs his opinions with customer feedback and data, and I often relied on Ryan to help me deliver a better experience to user, in a short period of time."

[Brendan Dixon](#)

Software Development Manager, formerly Amazon Web Services, Microsoft

"What I appreciate about Ryan is his obsession to detail and customers. Ryan refuses to let business politics to ever interfere with doing what is best for customers. He invests himself to discover the best solutions and then make them available. I wholly trust Ryan's evaluation of front-end engineers and Information Architecture. Ryan would make a solid contribution to any team requiring solid front-end skills blended with a deep customer concern."

[Adrien Cahen](#)

Full-stack Javascript Engineer, Airbnb, formerly Yahoo!, Twitter

"Ryan is a rock star. Through his work on SimplePie, he has a healthy understanding of PHP and server-side concerns. He is extremely proficient in all aspects of modern web development [...]. He is aware and respectful of standards-body recommendations, but he knows that in the end, user satisfaction (as opposed to developer comfort) is most important. [...] [Ryan managed] to go above and beyond the call of duty by proposing and implementing creative solutions to the hurdles that appeared along the way."

[Brian Emmett](#)

Software Engineering Manager, Google, formerly Apple, Netflix

"What has always impressed me about Ryan was his internal motivation for continual improvement. Whether it's creating software in his spare time or researching and implementing bleeding-edge UI techniques, I've always admired his drive. Coupled with a rich technical acumen and superior interpersonal skills, it was always a pleasure to work with him [...]."

Groups & Accomplishments

- Editor, Producer, and Publisher for the book [Federal Probation Bible](#), 2022–2023 Edition written by E.M. Baird. (ISBN: 978–0–578–99269–3 (Paperback))
- Voting Representative for AWS, [PHP Framework Interoperability Group](#) (2012–2013)
- Member, [RSS Advisory Board](#) (2007–2009)
- Patent, "[Hive-based Peer-to-Peer Network](#)" (US8103870B2)
- Patent, "[System and Methods for User Authentication across Multiple Domains](#)" (US15042104; Pending)
- Student guest speaker for the 2004 Silicon Valley College graduation ceremony.

Education

Silicon Valley College (now [Carrington College](#)) — San Jose, CA

Bachelor of Arts, Design and Visualization (November 2003)

- GPA: 3.84
- Web, graphic, multimedia, and publication design.