Ian Perkins

Senior Software Engineer

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Education

University of Arkansas - Fayetteville

Fayetteville, AR, USA

B.S. in Computer Science

Aug. 2014 - May 2018

- Minor in mathematics and graduated with honors.

Skills

Languages (in order of proficiency)	Ruby on Rails, Lua, JavaScript (React.js), Go
Backend Technologies	Openresty, NGINX, Phusion Passenger, Redis, AWS, Azure
DevOps Tools	Docker, Jenkins, GitHub Actions, Kubernetes, Gatling, New Relic, Splunk, Terraform

Work Experience

Cerner

Kansas City, MO, USA

Senior Software Engineer

Feb. 2021 - Present

- Designed and developed a Ruby on Rails rate limiting service and API to protect the platform and the services behind it from spikes in traffic, increasing overall availability across the platform.
- Improved monitoring and observability to our web platform by creating a Lua library to communicate telemetry data from the API platform to New Relic for analysis and alerts on platform health.
- Created an npm package in React.js that was integrated into an internal application for engineering teams to quickly and easily manage how they set rate limits to protect their services.
- Mentor new engineers and formally evaluate whether they are prepared for their permanent team assignment.
- Answer questions and drive discussion in a public forum regarding adherence to standards like the OpenAPI Specification, Ruby on Rails best practices, and applicable RFCs.
- Maintain and curate platform and API documentation for external consumers.
- Responsible for platform health, support, weekly deployments, and incident response while on-call and as escalation manager.

Cerner

Kansas City, MO, USA

Software Engineer

Aug. 2018 - Feb. 2021

- Led initiative to decouple the weekly platform deployment testing from the functional validation, integration testing, and prototyping of our contributors' APIs via a Jenkins job and load balancer configuration, saving thousands of engineering hours to date.
- Implemented a distroless Docker image that eliminated hundreds of CVEs from unused system packages provided by default in the OS image unblocking deployments for the United States Department of Defense and Department of Veteran's Affairs.
- Transitioned from a WEBrick server to the Openresty web platform with an NGINX web server to remove a bottleneck for high-volume POST endpoints and streaming resources.
- Identified and managed Service Level Objectives (SLOs) and Service Level Indicators (SLIs) to set a baseline expectation for all APIs incorporated into our platform.
- Monitor, support, and resolve metrics alerts from various telemetry sources, scheduled tenant migrations, and incidents related to the platform.
- Simplified and centralized our API Developer Guide and platform contribution process to eliminate unnecessary paperwork.
- Developed New Relic dashboard and alert templates using Terraform modules to improve monitoring scalability when deploying to new cloud region zones.

Writing

Computational Complexity of Determining the Rigidity of FTAM Assemblies

ScholarWorks @ UARK

Co-Author

Aug. 2017 - May 2018

- Discusses the property of rigidity in folding tile assembly models (FTAM) by devising a simple definition of rigidity using a 3SAT reduction to determine its complexity leading to a co-NP-complete result.