

Ryan Min

linkedin.com/in/ryan-min
ryanmin42@gmail.com
416-320-4990
New York, NY

Technical Skills

Programming Languages - Golang (Go), Python, Java, C++, JavaScript

Tools & Technologies - Docker, Kubernetes, Linux, Helm, OpenTelemetry, PostgreSQL, Azure, Grafana Stack, Terraform

Experience

Geico - Senior Software Engineer

Jun 2025 - present

Observability Platform

New York, NY

- Responsible for scaling and maintaining a large-scale Loki observability platform on Azure AKS and on-prem MicroK8S, consisting of ingestion, indexing, and query activity of 100+ TB/day of logs across 30 clusters up to 1000 nodes in size.
- Planned and drove a major Loki upgrade and migration to community Helm charts, delivering significant architectural improvements to the horizontal scalability and observability around log indexing, compaction, and retention systems.
- Integrated and tuned KEDA-based autoscaling for Loki read path using Prometheus and workload-based scale signals, iteratively optimizing scaling behavior and stabilization parameters to drive \$1M+ infrastructure cost reduction annually.
- Led initiatives for capacity planning and performance tuning across AKS infrastructure, analyzing workload usage to optimize resource allocation, LogQL query sharding, and caching strategy in order to balance performance and cost.
- Built operational automation tooling using Azure DevOps and Slack workflows to automate deployment failover and change notices/reviews, used org-wide by 50 engineers across 30+ weekly production changes and incidents.
- Spearheaded oncall remediation of critical platform outages, diagnosing failure modes across several layers of the infrastructure and application stack, involving filesystem corruption, stalled daemons and pod scheduling conflicts.

Splunk - Software Engineer (Engineer I -> II, Oct 2023)

Jan 2022 - Feb 2025

Edge Computing Observability

Toronto, ON

- Architected an Otel-based metrics pipeline processing engine that allowed ingress/egress to many metrics sources/sinks
 - Drove cross-functional team architectural decisions entailing mistyped data and data integrity across phased release
 - Designed sub-features such as Splunk -> Otel metrics marshalling and parallel intake of logs/metrics for Otel ingestor
- Built event-driven observability system using GitLab API, API Gateway and a Python-based Lambda to extract deployment, feature rollout and test suite health metrics and pushed them to Prometheus/Grafana, deploying with K8S and Terraform
- Led the implementation of an automatic rollback feature of data agents to older states, keeping partial dataflow on failure
 - Redesigned agent healthcheck to self-report rollback status to control plane, cutting status REST API latency by 94%
- Identified/filled Splunk-to-Splunk protocol gaps from C++ source in Go code, raising parity with other Splunk products
- Lead engineer on the lookup feature, enabling pipelines to join data with external row-based tables from Splunk servers
- Remediated concurrency-based customer bugs in Go by analyzing goroutine stack traces and pprof heap dumps

Technical Contributions

OpenTelemetry (CNCF) - Open Source Contributor

Aug - Nov 2024

- Built a new Otel logs receiver in Go that asynchronously streamed container events from Docker daemon into log records
- Improved accuracy of Otel components by correcting inconsistencies in parsing of Docker and Splunk event attributes

US Patent and Trademark Office - Inventor (Pending)

filed Feb 2024

- Mirrored Lookup Table at Stream Data Processing and Batch Search Systems - Application 18/584824 (filed by Splunk)

Education - University of Waterloo, Hon. B. Computer Science

Sep 2017 - Dec 2021