

Adam Richardson

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Work Experience

Stripe - Senior Software Engineer (tech lead for Data Movement) 2020 – present

- As tech lead for Data Movement, set the technical direction, drove planning and prioritization, and scoped projects for a team of 7 engineers
- Designed and implemented Stripe's next-generation streaming ingestion platform based on Apache Flink and Kubernetes, reducing end-to-end data ingestion latency from 2+ hours to less than 1 minute
- Drove fundamental efficiency improvements for Stripe's Spark- and Airflow-based data ingestion platform, totaling \$3.5m/year of AWS savings
- Implemented a custom S3 retry policy for Stripe's Spark data pipelines, reducing the number of pipeline failures due to rate limiting by a factor of 10
- Led a cross-functional project across feature 8 engineers across 3 teams enabling support for Stripe's next-generation API data models in across all offline workflows the data warehouse

Coinbase - Software Engineering (Coinbase Commerce, Application Security) 2017 – 2020

- Built a SaaS cryptocurrency [ecommerce platform](#) from the ground up that went on to process more than \$10M USD in transaction volume
- Implemented fundamental improvements in Coinbase's open-source vulnerability scanner, Salus
- Shipped open-source patches fixing critical bugs in the [Yarn](#) and [Rails](#)

Stripe - Software Engineer (Storage) January – April 2017

- Lead a mission-critical shard rebalancing for Stripe's sharded MongoDB installation, deploying hundreds of new servers and migrating terabytes of live production data with zero downtime

Shopify - Software Developer (Production Engineering) January – August 2016

- Built and deployed a custom caching layer for NGINX load balancers, increasing global cache hit rate by 4%

Education

- **University of Waterloo** (Waterloo, Canada) - Bachelor of Mathematics

Skills

- **Technologies:** Spark; Flink; Airflow; Presto/Trino; Iceberg; Kafka; Databricks
- **Programming languages:** Scala; Java; Python; Rust; Go; TypeScript; Ruby; C/C++

Personal projects

- [libcrex](#): JIT-compiled regular expression engine implemented in C
- [queensway](#): Toy DNS proxy server implemented in Rust