

CAT NGO

github.com/catngo

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EXPERIENCE

Software Development Engineer, II – Remitly

10/01/21 — Now

Fraud Prevention/Remittance Risk Orchestration Team

Jonah Glover, Engineering Manager (jonahg@remitly.com)

- Designed and implemented an event-driven architecture (leveraging AWS SQS and Goroutine) to consume and write customer's data into our graph database (AWS Neptune) as part of a company-wide effort to decouple from reading legacy RDS instance
- Implemented the user experience in Typescript and React-Native that allows customers to directly call Customer Service from our app when their transaction has been in review for longer than two hours, leading to a 13% increase in transaction completion rate
- Implemented and released the functionality (written in PHP), allowing Customer Service agents to temporarily disable Multi-Factor Authentication (MFA), making MFA not being permanently disabled for the customer and increasing our customer's account security and protecting them from an Account Takeover attack

Software Development Engineer, I – Remitly

02/16/21 — 09/30/21

Fraud Prevention Team

Jonah Glover, Tech Lead (jonahg@remitly.com)

- Optimized a data extraction job in Scala by using a Spark custom incremental extractor, reducing the daily run time from 12 hours to less than 1 hour
- Implemented Prometheus alarms to support program managers and analysts in detecting early warnings of fraudulent activity, saving an estimated \$400k of losses in 2021
- Migrated Fraud systems to Kubernetes and AWS EKS cluster, leading to cost reduction (saving an estimated \$20k per year) and better scalability of our systems as well as complying with to Security and Compliance policy
- Mentored a Software Engineer Intern and supported him in ramping up and delivering impactful project, leading to him accepting the offer to return to the team as a full-time engineer

Software Development Engineer, I – Remitly

07/21/20 — 02/15/21

Customer Transaction Accounting Processing Team

Noam Chitayat, Engineering Manager (noam.chitayat@gmail.com)

- Optimized a Go worker process writing disbursement data by using a memory profiler (pprof) and reduced the runtime by 7 hours as well as making the process more resilient to failures
- Implemented and wrote rigorous integration testing for the improved loss logic state machine (written in Go), which processes 24 million financial events every day to accurately identify accounting loss
- Implemented functionality to emit events indicating accounting loss by integrating a Go service with existing Flink-SQS event pipeline
- Documented and diagrammed the complex state machine for identifying accounting loss using LucidChart and hosted knowledge-sharing sessions with the team

EDUCATION

Harvey Mudd College

Joint Computer Science and Mathematics (B.S.)

Graduated May 2020

GPA 3.835

SKILLS

Programming Languages

Go, Kotlin, Scala, Python, Java, C++, SQL, Typescript, JavaScript, PHP, Haskell, Prolog, Racket, R, HTML/CSS

Software Libraries

AWS SDK, Spark, Pprof, JDBI, Lombok, Jackson, Numpy, Scikit-Learn, React

Utilities

AWS (SQS, RDS, Dynamo, RDS, Redshift, S3, Flink), Prometheus, Jenkins, Docker, Gradle, Maven, LaTeX, Kubernetes, Git