

Rishov Dutta

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EDUCATION

**UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN**
BS IN COMPUTER ENGINEERING
May 2019 | Urbana, IL
College of Engineering

LINKS

Github:// [rsdutta](#)
LinkedIn:// [rishovdutta](#)

SKILLS

LANGUAGES

GoLang • Python • Java
Typescript/Javascript • HTML • CSS
C++ • C • Swift/XCode • Verilog • x86
SQL

FRAMEWORKS/OTHER

GraphQL • gRPC • AWS • Unix
Docker • Kubernetes • Terraform
PostgreSQL • MySQL • React • Angular
GatsbyJs • Temporal
Django • FastAPI • Spring • Vertx

OTHER

INTERESTS

Tournament Poker
Investing
Skiing
Backpacking

EXPERIENCE

FLOCK HOMES | SOFTWARE ENGINEER

June 2022 – Present | San Francisco, CA

- Migrated service to service communication from REST to gRPC. Wrote graphql schema and resolver generator which reads in protobuf service definition so developers only need to define the proto schema to have a working API.
- Infrastructure improvements to decouple and containerize services for easier deployment and local development. Jobs library for asynchronous processes with retry and recovery, as well as various cron jobs. Led transition to support multitenancy across the entire stack for SaaS product.
- Templated core user journey facilitating the exchange of assets with the ability to include and exclude certain steps. Integrates with document e-sign providers, title companies, and KYC partners.

SAMSARA | SOFTWARE ENGINEER

Apr 2021 – June 2022 | San Francisco, CA

- Worked on the Mobile Infrastructure team to develop solutions surrounding driver authentication, remote app signout, and mobile app performance improvements.
- Revamped build infrastructure using terraform and buildkite to speed up mobile builds by over 10x. Optimized JS bundle size by using Hermes engine.
- Created a new API service using Go to monitor and manage industrial devices as part of the Connected Equipment team. Created dashboards using React to display data ingested from industrial gateways.
- Worked with ingestion team to onboard new industrial gateways using AWS Kinesis.

BLACKROCK | SOFTWARE ENGINEER

Jul 2019 – Apr 2021 | New York, NY

- Created a new service to unify troubleshooting dashboard across 100+ clients using Vertx, an asynchronous Java framework. Used as the primary troubleshooting dashboard for Aladdin which provides visibility to users as to where trade orders are failing, etc.
- Developed a distributed caching service to reduce latency when computing compliance results during trade execution using Redis. Layered this service on top of existing workflows in C++ and Java.
- Created a portfolio simulation tool using Java and Angular to capture investing habits of portfolio managers and other users around the firm.
- Developed applications using Java to report the AUM, cash flows, revenue, benchmarks, and other portfolio information to portfolio managers.

PROJECTS

RASPBERRY PI HOME SECURITY SYSTEM | SOFTWARE ENGINEER

Apr 2019 – May 2019 | Urbana, IL

Engineered home security system using two cameras and a Raspberry Pi to monitor an area using motion tracking and face detection using OpenCV. Sends images of invader to user via email as well as uploads images to dropbox

RISC-V PROCESSOR | HARDWARE DEVELOPER

Oct 2018 – Dec 2018 | Urbana, IL

Created a 5 stage pipelined RISC-V micro-processor that supports the RV32-I instruction set with branch resolution in the EXECUTE stage, an 8 entry fully associative victim cache placed between the L2 and physical memory, and a global 2-level branch history table for branch prediction.