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**

COURSEWORK

UNDERGRADUATE

Computer Systems Engineering
Computer Architecture
Applied Machine Learning
Applied Parallel Programming
Artificial Intelligence
Cloud Computing
Algorithms and Models of Computation
Computer Security
Digital Systems Laboratory

SKILLS

LANGUAGES

Proficient:
GoLang • Python • Java • C++ • C
x86 • Javascript • HTML • CSS
Familiar:
MATLAB • Swift • SQL
Verilog
Frameworks/Other
GraphQl • gRPC • AWS • Unix • Docker
Kubernetes • Terraform • Django
Spring • React • Angular • Vertx

OTHER

AWARDS

2017
Operating System Design Competition
Runner-Up
2016
HackIllinois Honorable Mention
2015
Eagle Scout

INTERESTS

Tournament Poker
Investing
Skiing
Backpacking

EXPERIENCE

SAMSARA | Software Engineer

Apr 2021 – Present | 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 Vertix, 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.

BLUEDRESS CAPITAL | Software Engineer

Jun 2017 – 2019 | Urbana, IL
Developed solutions using django, postgresql, and react/redux for the fund website with trade execution, stock comparison features, profit modeling, and overall fund performance. Also created a chatbot to respond to users' stock market queries using wit.ai for NLP

LINUX KERNEL | Software Engineer

Apr 2017 – May 2017 | Urbana, IL
Developed a Linux kernel which supports non-preemptive context switching, segmented memory protection, a simple read/write file system, valgrind/malloc, and drivers for keyboard input, text/audio output, and clock