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:
C++ • C • Java • x86 Assembly
Python • Javascript • HTML • CSS
Familiar:
GoLang • MATLAB • Swift • SQL
Verilog
Frameworks/Other
Vertx • Django • Apache Spark
Spring • Docker • Kubernetes
React/Redux • Angular • Unix

OTHER

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

INTERESTS
Tournament Poker
Investing
Skiing
Backpacking

EXPERIENCE

BLACKROCK | Software Engineer
Jul 2019 – Present | New York, NY

- Created a new service to unify troubleshooting dashboard across 100+ clients using an asyncronous Java framework - Vertx. Used as the primary troubleshooting dashboard for Aladdin which provides near instantaneous results 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 and is used daily by over 5,000 users worldwide

BLACKROCK | Software Engineering Intern
May 2018 – Aug 2018 | Princeton, NJ

- Developed applications using Java to report the AUM, cash flows, revenue, benchmarks, and other portfolio information to portfolio managers.

DECISIVE ANALYTICS CORPORATION | Machine Learning Intern
Jun 2017 – Aug 2017 | Arlington, VA

- Developed algorithms in Java to parse audio and video files to efficiently summarize them using natural language processing and differentiate the results based on semantic frames and role labeling
- Researched and implemented behavioral analysis algorithms in Python to create player tracks and visualize certain tendencies in games such as Dota 2 and Counterstrike for use by the United States Military

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