

RICHARD ZHU

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EDUCATION

University of California, Berkeley

B.A. Computer Science | *Upsilon Pi Epsilon*

Aug. 2019 – May 2023

GPA 3.85

EXPERIENCE

Ramp

Software Engineering Intern

Sept. 2022 – Dec. 2022

New York, NY

- Added spend programs/limits to the developer API, during launch and deprecation of card programs
- Improved data security for 100+ businesses, by encrypting OAuth secrets and robustifying queries
- Cut test times for the API by 33%, by adding CLI shortcuts for requests, deferred tasks, and pages

Citadel

Quantitative Development Intern

Jun. 2022 – Aug. 2022

New York, NY

- Simulated 14B USD daily in allocations of trading engine executions, in refactor of backtest pipeline
- Reduced monthly backtest runtimes by 75%, by parallelizing runs across 3800+ stocks on GCP
- Constructed factor portfolios with 2100+ stocks, optimizing tracking error to theoretical risk models

Nuro

Software Engineering Intern

Feb. 2022 – May 2022

Mountain View, CA

- Provided 2x improved fidelity into teleoperational health, via an overhaul of health status reporting
- Proxied 4000+ delivery update messages per day from robots to teleoperation console frontends
- Developed internal prototype for modules to subscribe to and mock GCP pub/sub topics in C++

Databricks

Software Engineering Intern

May 2021 – Aug. 2021

San Francisco, CA

- Deployed internal app to visualize and manage benchmarks for detecting performance regressions
- Increased load test throughput by 150%, by migrating requests to the Armeria async HTTP client
- Built pipeline to automate test runs, take performance metrics, and store results in an AWS RDS

University of California, Berkeley

Undergraduate Student Instructor

Jan. 2021 – Dec. 2021

Berkeley, CA

- Led lab and discussion sections of 50 students for CS 170: Algorithms, CS 61A: Intro to CS
- Managed 2 academic interns, providing pedagogy mentorship and instruction in tutoring sections

PROJECTS

Investment Portfolio Diversity Visualizer | *Python*

github.com/richardszhu/br-pdv

- Won the BlackRock API Prize at Cal Hacks 2019, the largest collegiate hackathon in the world
- Showcased app to help diversify investment portfolios, utilizing BlackRock's Aladdin API

AWARDS

Neo, Scholar

Sept. 2021

Intuit, Hansen Computer Science Scholarship

Apr. 2019

SKILLS

Languages: Python, Java, Go, C++, C, Scala, JavaScript, SQL, Jsonnet

Tools: Git, Kubernetes, AWS, GCP, Docker, Bazel, Pandas, PostgreSQL, SQLAlchemy, Spark