

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 6.0, for an app that helps diversify investment portfolios

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