

RICHARD ZHU

rszhu@berkeley.edu | 858-371-8838 | linkedin.com/in/rszhu

EXPERIENCE

Citadel

Aug. 2023 – Present

Software Engineer

New York, NY

- Enabled quant research volume to scale by 20x, by building out a GKE-native job compute platform
- Led migration of 40+ TB of research caches to GCS, by integrating cloud-native I/O into workflows
- Improved load/save times by 9x for custom research data structures with parallel serialization
- Reduced risk modeling runtimes by 15%, by parallelizing caching in graph compute frameworks
- Expanded QR capabilities by upgrading tech platform to support ML modeling and GPU compute
- Supported 200+ researchers and engineers with migrating to GKE-native development machines

Ramp

Sept. 2022 – Dec. 2022

Software Engineering Intern

New York, NY

- Launched spend program, spend limit, and accounting functionalities on the Ramp developer API
- 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

Jun. 2022 – Aug. 2022

Software Engineering Intern

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 computation on GCP Compute Engine
- Constructed factor portfolios with 2100+ stocks, optimizing tracking error to equity risk models

Nuro

Feb. 2022 – May 2022

Software Engineering Intern

Mountain View, CA

- Provided 2x improved fidelity into teleoperational health via an overhaul of health status reporting
- Proxied 3000+ 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

May 2021 – Aug. 2021

Software Engineering Intern

San Francisco, CA

- Deployed internal app to visualize and manage benchmarks for detecting performance regressions
- Increased throughput by 150% in load tests on internal microservices, by parallelizing requests

University of California, Berkeley

Jan. 2021 – Dec. 2021

Undergraduate Student Instructor

Berkeley, CA

- Led labs, discussions, and office hours of 50+ students for CS 170 (Algorithms), CS 61A (Intro CS)
- Managed 2 academic interns, providing pedagogy mentorship and instruction in tutoring sections

EDUCATION

University of California, Berkeley

Aug. 2019 – May 2023

B.A. Computer Science

GPA 3.87

Awards: Neo Scholar, Upsilon Pi Epsilon, BlackRock Prize @ CalHacks

SKILLS

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

Other: Kubernetes, Docker, AWS, GCP, GraphQL, Terraform, Bazel, Git, Pandas, PyArrow, PostgreSQL, SQLAlchemy, Spark