

Sumer Kohli

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EDUCATION

Stanford University

M.S., Computer Science (Distributed Systems & Machine Learning)

Sep 2022 – May 2024

- **Distinctions:** Guaranteed Course Assistantship (awarded to the top admitted students).

University of California, Berkeley

GPA: 4.00

B.S., Electrical Engineering & Computer Sciences

Aug 2018 – May 2022

- **Distinctions:** Highest Honors; 2021 Outstanding GSI Award; CalHacks Prize Winner (4x); HackMIT Prize Winner (2x)
- **Organizations:** Cal Launchpad (AI/ML); DevOps @ Berkeley (VP of Tech); Data Science Society of Berkeley
- **Relevant Coursework:** CS170 (*Algorithms*); CS162 (*OS & Systems*); CS189 (*Machine Learning*); CS161 (*Cybersecurity*); CS186 (*Databases*); CS188 (*Artificial Intelligence*); CS61C (*Computer Architecture*); CS61B (*Data Structures & Algorithms*); EECS127 (*Optimization Models*); EECS126 (*Probability*); EECS16A/B (*Electronic Systems*); Math 53 (*Multivariate Calculus*)

EXPERIENCE

Roblox Corp.

San Mateo, CA

Software Engineer Intern

Jun - Aug 2022

- Delivered a Rust and C# implementation of a bulk update operation for the core storage layer that can scale to 100K+ QPS and provides a linear latency reduction with respect to batch size, unblocking migration of teams onto our new storage product.
- Created an accessible and feature-complete Rust-based template for gRPC backend services, driving internal team adoption by reducing Rust onboarding time to a matter of minutes, and improving security through language memory safety guarantees.

Citadel LLC

New York, NY

Software Engineer Intern

Jun - Aug 2021

- Engineered a Kafka trade pipeline in Java for regulatory reporting that parses, transforms, and transports up to 6B trades/day.
- Built a Java library and accompanying write-behind cache to replay misprocessed Kafka messages, critical for error handling.
- Rigorously tested pipelines and replay library due to zero industry error tolerance for missing trades, and deployed to production.

University of California, Berkeley

Berkeley, CA

Teaching Assistant for EECS 16A (Fall '19, '20), 16B (Spring '20), and CS 61B (Spring '21 to Spring '22)

Aug 2019 - present

- Led development of group matching software that has been used during COVID semesters by classes totaling over 5,000 students. I am co-authoring a research paper on its efficacy to publish to a conference. Won the 2021 Outstanding GSI Award.
- Jointly led the core infrastructure team to support 1,000+ students and 40+ staff, designing and writing software as needed.
- Taught discussion sections, labs, and office hours, and was rated markedly above (4.81/5) the course staff average (4.64/5).

Microsoft Inc.

Sunnyvale, CA

Software Engineer Intern

Jun - Aug 2020

- Designed, developed, and deployed a new customer-facing Azure Communications service using C#/ASP.NET with my team, and a fully-featured UI using React/TypeScript (further details under NDA). Won the 2020 Garage Team Hero award.
- Implemented a C# backend for automatic ML-based captioning for the Windows Photo app with 300M+ yearly users.

Lawrence Livermore National Laboratory

Livermore, CA

Computational Scholar Intern

Jun - Aug 2019

- Researched and developed a Python-based key-escrow server on AWS and Docker to enable Full Disk Encryption (FDE) on the Lab's 3,500+ Macs, greatly improving operational security in response to escalating state-sponsored cyberattacks.
- Integrated and documented a REST API to enable authenticated access to user, machine, and recovery key data.

Nutanix Inc.

San Jose, CA

Software Engineer Intern

Jun - Aug 2015, Jun - Aug 2017

- Developed a performant Python-based backend to process and store over 1 million product telemetry data points a day.
- Built a fully-featured web interface to efficiently tabulate and visualize gigabytes of product telemetry in near real-time.
- Implemented reliable logging of core processes in C++, preventing potential catastrophic data loss during cluster imaging.

SKILLS

Languages C/C++, Python, Java, JavaScript/Node.js, Go, Rust, Swift, TypeScript, Objective-C, C#, Shell, Wolfram, R

Technologies AWS, GCP, Heroku; Docker, Kubernetes, Spark; MongoDB, MySQL, PostgreSQL; React, AngularJS, Vue.js

AI/ML TensorFlow, PyTorch, Keras; LASSO, ANOVA, Kalman Filter; CNN, LSTM, RNN, GAN, Transformer