Nicolas Chan

email nicolas@nicolaschan.com | phone (650) 515-6231 | repo github/nicolaschan | docs nicolaschan.com | v 2025

Experience

Microsoft — Senior Software Engineer

> Summer 2020 (Internship), July 2021 – Present (Full Time)

- **Improved scalability for Viva Engage messaging:** Built intelligent queuing system and cache in Java microservices, enabling nested-reply rollout to 10M+ users.
- **Strengthened authentication system:** Led security enhancement projects across microservice architecture, mitigating risks and unblocking partners.
- **Delivered critical platform features:** Advanced cross-team initiatives including Viva Answers Q&A, multi-tenant infrastructure, and live cross-region data migration.
- **Enhanced operational excellence:** Mentored junior engineers on system architecture and contributed to over 50% reduction in alert firings for our on-call rotation.

UC Berkeley Research Computing — Operations Intern

> September 2017 – May 2021

- **High-performance computing technical consulting**, compiling software, and cluster administration.
- **Developed Rust plugins** for Slurm workload manager to enforce usage quotas.
- **Published and presented research** at PEARC 19 on a cluster resource utilization analytics platform.

NASA Ames (via SGT, Inc.) — Airborne Science Mission Intern

> Summer 2018

- **Enhanced Mission Tools Suite Java/Tomcat service:** integrated data sources, optimized PostgreSQL queries, and improved Jenkins/Docker build pipeline.

Education

University of California, Berkeley

> August 2017 – May 2021

- **B.A. Computer Science & Mathematics** (double major) *with high distinction* (3.965 GPA)
- Electrical Engineering and Computer Sciences Honors Program
- *Selected Courses:* Data Structures (A), Machine Structures (A+), Computer Security (A), Computation and Complexity (A), Discrete Math & Probability (A), Math Logic (A), Numerical Analysis (A+)

Technical Skills

- **Languages:** Java, Python, Rust, JavaScript, Bash, Ruby
- **Web Technologies:** GraphQL, HTML, CSS
- **Systems & Tools:** Linux/NixOS, Git, Docker, Kubernetes, PostgreSQL, CosmosDB, Redis

Projects

- **Syntax-guided synthesis:** SYNT 2020 workshop presenter (UC Berkeley Supervised Independent Study)
- **bell.plus:** Built school bell countdown website reaching thousands of daily active users
- Additional projects at github.com/nicolaschan