Nicolas Chan

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Experience

Microsoft — Senior Software Engineer

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

- **Delivered critical platform features:** Engineered live cross-region data migration for 300k+ tenants, Viva Answers Q&A, and multi-tenant infrastructure.
- **Improved scalability for Viva Engage messaging:** Built intelligent queuing system and cache in Java microservices, enabling nested-reply rollout at scale.
- **Strengthened authentication system:** Led security enhancement projects across microservice architecture, from design to implementation, mitigating risks and unblocking partner teams.
- **Enhanced operational excellence:** Improved reliability using request hedging and Redis optimizations. Fixed bugs and tuned noisy alerts, contributing to over 50% reduction in alert firings for our on-call rotation.
- **Accelerated teammates:** Mentored junior engineers and created tooling for debugging internal APIs and Java dependency upgrades.

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 PEARC19 on a cluster resource utilization analytics platform.

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

Technical Skills

- **Languages:** Java, Python, Rust, JavaScript, Bash, Ruby
- **Web Technologies:** GraphQL, HTML, CSS, Node.js
- **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