Nicolas Chan

email nicolas@nicolaschan.com | phone (650) 515-6231 | repo github/nicolaschan | docs nicolaschan.com | v 2024

> Team player and prolific coder with a proven track record of building reliable, scalable systems.

Education

University of California, Berkeley

- B.A. Computer Science & Mathematics *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+)

Experience

Microsoft — Senior Software Engineer

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

- **Enhanced Viva Engage messaging services (Java/Ruby):** Used smarter queuing and caching to improve scalability and reliability, while unblocking the timely release of the nested-reply feature.
- **Led security feature adoption in microservice architecture:** Managed end-to-end project lifecycle, coordinated across teams, and led implementation ensuring secure and seamless production releases.
- **Accelerated cross-team initiatives:** Made foundational contributions in high-priority projects like multi-tenant support and data migration as part of the "Critical Initiative Tiger Team."
- **Mentored peers and improved on-call shifts:** Provided mentorship to junior engineers and drove on-call response and improvements, accelerating incident mitigation and reducing on-call noise.

Berkeley Research Computing at UC Berkeley — Operations Intern

> September 2017 – May 2021

- **Supported researchers using the supercomputer:** installing software, consulting, and debugging.
- **Developed Rust plugins** for managing resource quotas and performed other sysadmin tasks.
- **Published and presented work** on cluster usage analysis at the PEARC19 conference.

Stinger Ghaffarian Technologies, Inc. — NASA Ames Airborne Science Mission Intern

> Summer 2018

- **Created an IRC chat bot** to provide access to data on bandwidth-constrained airborne science missions.
- **Improved the Mission Tools Suite Java Tomcat service:** Added new data sources, fixed bugs, optimized Postgres database queries, and improved the Jenkins build system (using Docker).

Projects

- Nicolas Chan. 2019. A Resource Utilization Analytics Platform Using Grafana and Telegraf for the Savio Supercluster. In Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (learning) (PEARC '19). ACM, New York, NY, USA, Article 31, 6 pages. DOI: https://dl.acm.org/doi/10.1145/3332186.3333053
- **Supervised Independent Study** Investigating grammars for syntax-guided program synthesis. Presented at SYNT 2020 workshop: https://arxiv.org/abs/2007.06677
- **bell.plus** (https://github.com/nicolaschan/bell) Lead developer. Bell countdown website for high schools, received thousands of hits on a typical school day.
- Explore my other side projects on github.com/nicolaschan.