Nicolas Chan

nicolas@nicolaschan.com | nicolaschan.com | github/nicolaschan | (650) 515-6231

Objective: I'm a software engineer passionate about building reliable systems at scale. There's no better way to grab my attention than with a good race condition!

Education

University of California, Berkeley, Berkeley, CA
B.A. Computer Science & Mathematics with High Distinction (3.965 GPA) (August 2017 – May 2021)

- *Edward Kraft Award* (2017-18) for 4.0 GPA in first semester
- UC Berkeley 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+)

Work Experience

Microsoft
Software Engineer – Yammer Backend Platform (July 2021 – Present)

- Improving Yammer's core backend messaging services (Java/Ruby) to perform reliably at scale
- Building new backend features end-to-end, coordinating across teams, and supporting my colleagues

Software Engineer Intern – Yammer Security Team (Summer 2020)

- Developed fuzzing tool to test Yammer's GraphQL API
- Evaluated Yammer security issues

Berkeley Research Computing, University of California, Berkeley, Berkeley, CA
Operations Intern at Berkeley Research Computing (September 2017 – May 2020)

- Assisted researchers using UC Berkeley's supercomputer
- Developed Rust plugins for managing resource quotas
- Published and presented work on cluster usage analysis at the PEARC19 conference (see "Publications" below)

Stinger Ghaffarian Technologies, Inc., NASA Ames Research Center, Moffett Field, CA
Intern with the NASA Ames Airborne Science Mission (Summer 2018)

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

Universities Space Research Association, NASA Ames Research Center, Moffett Field, CA
Intern in Educational Associates Program at NASA Ames Research Center (Summer 2015)

- Helped with Winter Weather Dashboard user interface design for airline dispatchers (user-centered design)
- Added unit tests to the Mission Tools Suite Java Tomcat service for planning airborne science missions

Publications

- 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://doi.org/10.1145/3332186.3333053

Research

Supervised Independent Study (Spring 2020 – Spring 2021)

- Investigating grammars for syntax-guided program synthesis
- Presented at SYNT 2020 workshop: https://arxiv.org/abs/2007.06677

Selected Project

bell.plus (github.com/nicolaschan/bell) – *Lead Developer, Personal Project*

- Bell countdown website for high schools, received thousands of hits on a typical school day