

## Nicolas Chan

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### Education

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#### 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

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#### Microsoft

*Software Engineer 2* (September 2022 – Present)

*Software Engineer* (July 2021 – September 2022)

- Improving Yammer's core backend messaging services (Java/Ruby) to perform reliably at scale
- Building new backend features end-to-end, participating in on-call rotation, and mentoring colleagues
- Contributed to the "Critical Initiative Tiger Team," rapidly adapting to high-priority projects across teams, laying the groundwork for and accelerating development of new features

*Software Engineer Intern* – Yammer Security Team (Summer 2020)

- Developed fuzzing tool to test Yammer's GraphQL API
- Investigated and evaluated Yammer security risks

#### 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

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- 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

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#### 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

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#### 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