

Francis Kai Brokering

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LANGUAGES

- English (fluent)
- Japanese (fluent)

EXPERIENCE

[NASA Ames Research Center](#) - Mountain View CA (Jun 2020–Dec 2020)

Database Engineer - Full-Time Intern

- Analyzed the drone industry supply chain and created a database for an Electronic Exchange Platform to connect OEMs and tiered suppliers. Our data was used by a team designing a search-and-rescue drone for the U.S. Coast Guard. (I'm under NDA and cannot share detailed information.)

[NASA Langley Research Center](#) - Hampton, VA (Jun 2019–Sep 2019)

CNC Machinist Intern - Full-Time Intern

- Assisted engineers at the Langley Research Center 3D design and manufacturing center. Helped create GSE test model for ACS3 solar sail CubeSat.
- Modified a 3d printer by creating an enclosure, installing heat lamps and a liquid cooling system, and flashing the firmware in order to print Ultem (polyetherimide). (I'm under NDA and cannot share detailed information.)

[Mathnasium](#) - Mill Valley, CA (Sep 2018 - Feb 2019)

Math Tutor - Part-Time

- Tutored math students at Mathnasium. Learned how to become efficient in deconstructing someone's mistakes to provide reasonably short explanations for solving math problems.

EDUCATION

[University of California Santa Cruz](#) - Santa Cruz, CA (Sep 2019 - Jun 2023)

Computer Engineering (GPA: 3.9/4.0)

- Vice President of the [Japanese Student Association](#). (Sep 2020 - Present)
- Former member of [Slugbotics](#) (robotics team). (Sep 2019 - April 2020)
- Member of [Creative Coding Research Team](#) (Nov 2021 - Present)

PROJECTS

[Svafilfari](#) - Gesture Control for Safari (Oct 2020)

App Development

- Helped a friend implement a [feature](#) for a Safari extensions app on iOS 15 called "Svafilfari," using JavaScript

[Building History with 3D Modeling](#) - (Sep 2018 - Dec 2018)

Computer-Aided Designing

- Researched local historical buildings and modeled our town using 3D CAD software. Imported models into Unity (a game engine) so that we could explore this world in virtual reality

LEADERSHIP

Vice President of the Japanese Student Association.(Sep 2020 - Present)

- Received professional training on how to run a club and become a leader. Organized cultural events and weekly gatherings making sure everyone felt included.

Member of SOMeCA (Sep 2020 - Present)

- Received legal training to comply with University policies. Participated in meeting with other club leaders.

Captain of high-school soccer team

- Insured communication with the coach and organized practice drills and directed stratification on game days.

Middle school class president in Japan

- Participated in after school meetings with other class presidents and faculties. Led class discussions and organized weekly reports,

TECHNICAL SKILLS & TOOLS

Python ● ● ● ●

C ● ● ● ●

C++ ● ● ● ○

JavaScript ● ● ○ ○

HTML ● ○ ○ ○

CSS ● ○ ○ ○

Unix/Linux ● ● ○ ○

Git ● ● ○ ○

Figma ● ● ○ ○

CAD ● ● ● ●

SOLIDWORKS ● ● ● ●

Fusion 360 ● ● ● ○

Unity ● ● ○ ○

3D Printing ● ● ● ●

CERTIFICATES & AWARDS

- Dean's Honors Award, UCSC
- Google UX Design Professional Certificate
- College Scholars Program (Selected as a member of a UCSC enriched undergraduate study and research program.)