

# ALYSSA NGUYEN

## Education

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## University of California, Berkeley

*B.A. Data Science*

May 2023

Berkeley, CA

## Relevant Coursework

- Data Structures
- Discrete Mathematics and Probability Theory
- Great Ideas in Computer Architecture (Machine Structures)
- Operating Systems and Systems Programming
- Introduction to Artificial Intelligence
- The Structure and Interpretation of Computer Programs
- Principles and Techniques of Data Science
- Linear Algebra and Differential Equations
- Computer Security

## Experience

### Qualtrics

June 2022 - August 2022

*Software Development Engineering Intern*

*Seattle, WA*

- Prototyped the usage of graph databases within the company by brainstorming possible key features, and designed a database structure leveraging strong analytical skills and a deep understanding of the existing architecture.
- Utilized the Neo4j Graph Database to perform analytical queries, gaining valuable insight on customer preferences and behaviors for enhanced customer profiling.
- Implemented a UI feature in the existing software that displays generated analytics for a given customer.
- *Technology used: Neo4j, Typescript, Node.js, Cypher, Express, Jest, HTML, CSS, Docker*

### UC Berkeley California PATH

July 2021 – June 2022

*Undergraduate Research Assistant*

*Berkeley, CA*

- Collaborated closely with the professor and fellow research assistants to develop an open-source dashboard which served as a comprehensive system for monitoring system processes, demoing APIs, and providing real-time visualizations of transportation statuses for users.
- Tracked and analyzed critical areas of interest by writing queries to the MySQL server in order to observe and increase efficiency of transit in the Bay Area.
- *Technology used: React, SQL, Sanic, Linux, HTML, CSS, Figma*

### UC Berkeley Basic Needs Center - Food Pantry

April 2021 – June 2022

*Tech Lead*

*Berkeley, CA*

- Provided valuable support to the core Food Pantry team in optimizing workflows, streamlining processes, and reducing workloads to enhance the efficiency and effectiveness of the pantry, which serves over 4000 individuals annually.
- Collaborated with a student team to develop a user-friendly web application that serves both the volunteers, and the thousands of pantry visitors by speeding up inventory tracking, delivery processes, and grocery packing.
- Worked with Google Firebase to manage and sort data, specifically for the ordering feature which supports hundreds of deliveries and pickups per year.
- *Technology used: React, python, Firebase, Next.js, Flask, HTML, CSS, Figma*

### Juni Learning

August 2020 – March 2021

*Computer Science Instructor*

*San Francisco, CA*

- Taught computer programming fundamentals to 8-9 students per week, spanning grades 4-12, through personalized one-on-one private lessons.
- Developed and communicated lesson plans for important programming concepts in python, Java, and AP Computer Science tailored to each students' individual learning style.

## Technical Skills

**Languages:** Python, Java, C, C#, Typescript, HTML/CSS, JavaScript, Cypher, SQL

**Technologies/Frameworks:** React, React Native, git, Next.js, Flask, Sanic, Linux, GitHub, MySQL, Django, Expo, Docker, Neo4j, Android Studios, Bootstrap, Pandas, NumPy, JUnit

**Skills:** Unit testing, Object Oriented Programming, REST APIs, Photoshop, Lightroom, Figma, Design

## Projects

**DDR Song List Website** | *HTML, CSS, Javascript*

September 2022

- Website created to sort the song list for UC Berkeley's public DDR machine. Users are able to see song titles, artists, and difficulties sorted by what pack a song's in.

**Food Pantry Scheduler** | *Python, Flask, HTML, CSS*

May 2021

- Tool that automatically sorts over 100 volunteers each semester into the most optimal shift time based off a CSP algorithm.
- Redesigned the old scheduler tool and algorithm to use a REST call to fetch shift times from the Airtable database, allowing the pantry to specify a desired amount of volunteers per shift.