

# JOHN LE

San Jose, CA || Berkeley, CA

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## Education

### University of California, Berkeley

Expected: May 2023

Bachelor of Arts in Computer Science, Minor in Data Science

**Relevant Coursework:** Algorithms, Artificial Intelligence, Computer Programs, Computer Security, Data Structures, Data Science Foundations, Information Devices & Systems I & II, Discrete Mathematics & Probability Theory, Machine Structures, Operating Systems, Data Science Principles & Techniques, Machine Learning (IP), Probability for Data Science (IP)

**Cal Badminton:** Vice President for the club and competed in club meets with various institutions

## Work Experience

### Rippling

Summer 2022

*Software Engineer Intern*

*San Francisco, CA*

- Incoming Software Engineer Intern at Rippling for Summer 2022

### Amazon

May 2021 – August 2021

*Software Development Engineer Intern*

*Seattle, WA*

- Worked in the Profit Intelligence Organization that keeps track of profitability across all Amazon Marketplace shipments through the calculation of various metrics using streaming pipelines that utilizes services like AWS KDA and AWS Redshift
- Created a full stack application using AWS Lambda, AWS API Gateway, and other internal tools that translates various metrics and business rules from Amazon Ion format to human readable text and visualizes these metrics on a user interface built with React and Amazon frameworks

### Shopstack (YC W20)

January 2021 – February 2021

*Software Engineer Intern*

*Remote*

- Interned at YCombinator backed startup developing and testing mobile applications using GraphQL, Google APIs, MERN stack, and other technologies and frameworks
- Developed User Interfaces with React Native for iOS and Android and build additional backend logic with GraphQL and MongoDB integration to handle both synchronous and asynchronous requests

### UC Berkeley Computer Science Mentors

August 2020 – Present

*CS 61B (Data Structures) Mentor*

*Berkeley, CA*

- Direct weekly tutoring sections with 4-5 students to reinforce data structure concepts
- Contribute towards lesson planning and providing educational material such as weekly problem sets
- Teaching topics include data structures, sorting algorithms, and graph algorithms

## Projects

### Court Queuing System | Javascript, HTML/CSS, Express.js, Node.js, React

Github: [git.io/JLSjj](https://github.com/JLSjj)

- Developed a full-stack web application for use by Cal Badminton
- Allows players to sign up on a queue during open gym sessions and sends notifications when it is their turn
- Other features include admin privileges such as removing players and manually prompting notifications
- Designed and built backend service using the Websocket API to allow for real-time collaborative editing

### Pintos Operating System | C

Github: Private Repo

- Designed and implemented Pintos to support various features of a basic operating system
- Features included spawning and waiting on processes along with various other system calls, user program multithreading, fair scheduling and priority scheduling with support for priority donation, and an extensible filesystem that implements directories/subdirectories and resizable files using the Berkeley Fast File System design

### Cryptographic File System | Golang

Github: Private Repo

- Designed and developed a secure file system that supports creating, editing and sharing files between multiples users with support for concurrency across multiple user sessions
- Confidentiality of user accounts and file contents are secured using Argon2 hashing, AES cipher block chaining encryption scheme, and HMAC verification

## Technical Skills

**Programming Languages:** Java, C, Python, SQL, Scheme, JavaScript, Typescript, HTML/CSS, Golang, RISC-V Assembly

**Tools:** Git, Flask, React/React Native, NumPy, Node.js, Express.js, MongoDB, GraphQL, LaTeX, Heroku