

# JOHN LE

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## Education

### University of California, Berkeley

Expected: December 2022

Bachelor of Arts in Computer Science, Minor in Data Science

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

**Cal Badminton:** Senior Advisor (formerly Vice President) for the club and competed in club meets with various institutions

## Work Experience

### Rippling

May 2022 – August 2022

*Software Engineer Intern*

*San Francisco, CA*

- Worked on the Apps Platform team that integrates third party applications and software onto Rippling to allow users to seamlessly interact with them on a single platform
- Primarily focused on OAuth 2.0 authorization protocol integration for third party applications along with optimizing aggregation of third party application data/metrics to develop scalable data import infrastructure
- Exposed critical customer-facing issues where new app integration features are disabled for thousands of users due to lack of access token scopes and created infrastructure that notifies users and fetches updated token scopes to enable the new integration features
- Launched a new initiative to standardize app integrations to the Rippling platform to engender uniformity and ensure critical features are always usable to customers

### 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 data 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 used in the streaming data pipelines from Amazon Ion format to human readable text and visualizes it on a user interface built with React and Amazon frameworks so that users can view a breakdown of various business components with their metrics without having to understand the codebase

### 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 where some teaching topics include data structures, sorting 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