# JOHN LE

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# Education

# University of California, Berkeley

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 – Present

 $Software\ Engineer\ Intern$ 

• Working 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 focusing 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 through streaming data pipelines

Amazon May 2021 – August 2021

Software Development Engineer Intern

Seattle, WA

San Francisco, CA

- 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 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)

 ${\bf January~2021-February~2021}$ 

Expected: December 2022

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

- 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 $\mid C$

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