# ANDREW CHEN

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#### **SKILLS**

Languages
Tools/Frameworks

Java, JavaScript, TypeScript, Python, C, SQL, HTML, CSS, and Ruby Vue.js, Git, Docker, Flask, Firebase, Vuex, Quasar, and Ruby on Rails

# **EDUCATION**

# University of California, Berkeley

Expected May 2022

Bachelor's in Computer Science, Junior, GPA: 3.88/4.00

Selected courses: Advanced Algorithms, Databases, Computer Architecture, and Data Structures & Algorithms.

#### EXPERIENCE

# Wind River Systems

June 2020 - Present

Software Engineering Intern

Alameda, CA

- · Optimized and implemented features for a project sharing platform using Vue.js, Vuex, Quasar, and Firebase.
- · Increased performance by 208% and reduced loading times by 2.2secs according to Lighthouse audits by paginating API calls, refactoring to use Vuex caching, modularizing the codebase, and using lazy loaded routes.
- · Created a customizable drag and drop form editor and other features to automate routine tasks such as data entry.
- · Emphasized code maintainability by strengthening error handling, following best practices, and writing documentation.

UC Berkeley
Research Apprentice
Feb. 2020 - Present
Berkeley, CA

- · Developed a web-scraping framework for computational research using Python, Scrapy, and Docker.
- · Built a Chrome extension which audits and submits web pages to a back end for analysis by following Agile practices and using JavaScript, HTML, and CSS.

## UC Berkeley EECS Department

Sept. 2019 - May 2020

Berkeley, CA

· Mentored 20 students in Data Structures & Algorithms and Interpretation of Programs by explaining technical topics such as Java, Python, regex, graph algorithms, and debugging.

## **PROJECTS**

# CovidStories

Academic Intern

- · Architected a forum to bring awareness to victims of the pandemic and share their personal experiences.
- · Created a server-sided rendered front end with Nuxt.js, Vue.js, Typescript, Vuex, and Tailwind CSS.
- · Handled back end logic including authentication with a RESTful API using Python Flask and PostgreSQL.

# RelationalDb

- · Built a relational database management system over several months with Java to facilitate a more intimate understanding of databases.
- · Implemented multiple granularity locking for concurrency control, B+ tree indexing, join and query optimization algorithms, and ARIES database recovery (Algorithms for Recovery and Isolation Exploiting Semantics).

#### SocialNetwork

- · Collaboratively created a social media website with partners using Git and Github.
- · Built models, views, controllers, and CRUD operations for posts, messages, and comments with Ruby on Rails, HTML, CSS, and Bootstrap.

# Git

- · Developed a Git clone with Java by applying serialization, persistence, and file I/O concepts.
- · Implemented Git features including git-merge with automatic conflict resolution, git-branch, and git-checkout.
- · Ensured reliability by systematically writing automatic integration and unit tests with JUnit.
- · Shortened long-term development time, organized tasks, and planned architecture by writing a detailed technical spec.

# Sketch

· Created a fun, resizable, and shareable canvas to paint, shade, and color using JavaScipt, HTML, CSS, and Bootstrap.