

# ANDREW CHEN

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## SKILLS

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<b>Languages</b>	Java, JavaScript, TypeScript, Python, C, SQL, HTML, CSS, and Ruby
<b>Tools/Frameworks</b>	Vue.js, Git, Docker, Flask, Firebase, Vuex, Quasar, and Ruby on Rails

## EDUCATION

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**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

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**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 prefetching API requests, 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 and writing documentation.

**D-Lab** Sept. 2020 - Present  
*Research Apprentice* Berkeley, CA

- Developed a web-scraper for computational research using Python, Docker, Scrapy, and BeautifulSoup.
- Implemented text processing, file parsing, and a MongoDB pipeline to efficiently parse hundreds of websites.

**Goodly Labs** Feb. 2020 - May 2020  
*Research Apprentice* Berkeley, CA

- Built a Chrome extension that audits and submits web pages to a back end for analysis by following Agile practices and using JavaScript, HTML, CSS, and Chrome APIs.

**UC Berkeley EECS Department** Sept. 2019 - May 2020  
*Academic Intern* Berkeley, CA

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

## PROJECTS

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### CovidStories

- 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).

### Social Network

- 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.