# University of California Berkeley

Fall 2015 to Fall 2019 Intended bachelors of computer science

#### Relevant Coursework

[CS61C] Computer Architecture [Math 54] Linear Algebra [CS70] Discrete Math and Probability Theory [CS61B] Data Structures

[CS61A] Structures and Interpretation of Computer

Programs [CS98] Ruby on Rails

### Skills

■■ java ■■■ python ■■ oc ■■■ html ■■■ css ■■ js ■■ git
■■■ illustrator ■■■ photoshop ■ on sql ■ on rails

## **Experience**

#### UI/UX Developer for ASUC Chief Technology Office [Sept 2016 - Present]

Communicated with different offices within ASUC (Student Union) to provide technological solutions to common problems. Designed front end of BerkeleyTime website to catalog 8000+ courses, display relevant course information and enrollment data. Designed front end of Berkeley Mobile app that features real-time Bear Transit times, dining hall menus and facility schedules.

#### Tech Consultant for CodeBase [Aug 2016 - Present]

Created web apps using react.js and ruby on rails for startups.

Used API's such as Algolia.is to create fast, scalable production level products.

Thoroughly documented code to allow for project to be passed back to the startup for continued development.

#### **Graphic Designer for AAA [Sept 2016 - Present]**

Created flyers and designs for Asian American Association to market fundraisers and programs.

Led committee in design process and selected flyers to be printed and displayed across campus.

Taught committee members new techniques in photoshop and illustrator.

Communicated with other committees to ensure designs standards are met for their flyers and events.

#### Lab Assistant for CS61A and CS61B [Jan 2016 - Present]

Strengthened student knowledge of data structures, sorting algorithms, environment diagrams and object oriented programming. Communicated with lab assistants and teacher assistants at the largest CS program in the number one public university. Taught students to be familiar and effective with languages such as Java, Python, SQL, and Scheme.

Provided office hours to further explain topics and debug projects such as Scheme interpreters and Text Editors.

#### Front End Developer for Cyrcle [Aug 2016 - Sept 2016]

Drafted wireframes to create clean and minimalist designs and built the website from scratch using HTML/CSS/JS. Communicated with graphic designer and Founder to create a smooth user experience across mobile app and web app. Communicated with back-end engineers to integrate front and back end.

Developed new search features to improve search accuracy and provide a cleaner search experience.

#### Front End Developer for Big Data Genomics [lan 2016 - Aug 2016]

Visualized human genome by highlighting allele differences on a web app using Javascript library d3.js. Processed millions of data points and developed algorithms to maintain a quick, fluid viewing experience. Implemented client side performance improvements to reduce back end load.

Designed front end of website to cleanly display genome data and allow easy comparison between genomes.

# Projects

### Bearmaps https://github.com/Justinzh1/Bearmaps]

Created a google maps inspired project that parses xml data from open street maps to construct a graph connecting local restaurants and attractions in the Berkeley area. Created a quadtree to stitch together images to support high resolution zooming. Implemented the A\* routing algorithm to calculate the shortest distance between two points and render a path on the web app. Implemented a trie to support auto completion for known attractions within the city.

# Editor [https://github.com/Justinzh1/Editor]

Built a text editor from scratch using the javaFX library inspired by existing text editor such as Sublime and Atom. Using a modified linked list and array list, I was able to implement many operations in constant time including mouse click, undo/redo, addition and deletion of characters and more. Text editor supports features including: dynamic word wrapping, scrolling, open and saving existing files, arrow key

### SimplyBecky [http://www.simplybecky.cloudapp.net]

Created a blogging site for a client using ruby on rails to store all posts and comments. Created a database using rails active record database using PostgreSQL to keep track of users and posts. Managed user permissions to allow client to manage site. Implemented markdown rendering to allow client to improve readability and organization. Provided client with ability to edit and delete posts. Hosted and maintained website on Microsoft's Azure Cloud service.

#### **Social Media**