

Jeffrey Yuan Liu

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EDUCATION

University of California, Berkeley, Berkeley, CA

- Bachelor of Arts in Computer Science Aug 2016 – May 2020
 - Cumulative GPA: 3.7
- Relevant Coursework
 - CS 61A: The Structure and Interpretation of Computer Programs
 - CS 61B: Data Structures
 - CS 70: Discrete Math and Probability Theory
 - CS 170: Efficient Algorithms and Intractable Problems
 - Web Design DeCal

PROJECTS

Database (Java)

- Data Structures (CS 61B) Project
- Implemented a small relational database management system (DBMS) and a domain specific language (DSL) similar to SQL from scratch
- Worked in a group of 4 to make design decisions regarding implementation
- Collaborated with a partner to implement the DBMS and DSL
- Used git version control, JUnit testing, and Javadoc documentation
- Implemented table storage, simple “select” statements, row expression parsing, row evaluation, and error handling

Bear Maps (Java)

- Data Structures (CS 61B) Project
- Worked with an existing front-end and OpenStreetMap (OSM) mapping data to write the back-end for a mapping and routing web application for the Berkeley area
- Made design decisions for most of the back-end implementation
- Implemented map rastering and zoom functionality
- Used a SAX parser with an OSM XML data file to build a graph representation of the Berkeley area
- Used the A* algorithm with the graph representation to implement shortest-path routing

Yelp Maps (Python)

- The Structure and Interpretation of Computer Programs (CS 61A) Project
- Used the Yelp Academic Dataset to create a Voronoi diagram to visualize ratings for restaurants in the Berkeley area
- Implemented the k-means unsupervised learning algorithm to group restaurants together based on proximity
- Implemented simple least-squares regression to predict user ratings

THE CORPORATION (HTML, CSS, jQuery, UI/UX)

- Web Design DeCal Project
- Conceptualized, designed, and implemented the website of a fictional corporation in a dystopian universe
- Selected for presentation at the end of the semester based on design and implementation
- Placed 2nd at end-of-semester competition based on students’ votes
- Website can be accessed at jeffreyyuanliu.com/thecorporation

EXPERIENCE

UC Berkeley Center for Access to Engineering Excellence, Berkeley, CA

- Undergraduate Tutor Sep 2017 – Present
 - Provided individual and group tutoring to undergraduate students for CS 61A (The Structure and Interpretation of Computer Programs), CS 61B (Data Structures), and CS 70 (Discrete Math and Probability Theory)

UC Berkeley CS 61B (Data Structures), Berkeley, CA

- Academic Intern Aug 2017 – Present
 - Assisted students in labs and office hours

SKILLS

Java, Python, Javascript, HTML, CSS, jQuery