

Brian Hsu

SOFTWARE ENGINEER

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Work Experience

LiveRamp

San Francisco, California

SOFTWARE ENGINEERING INTERN, DATA MANAGEMENT BACKEND

May 2019 - Aug 2019

- Doing this and that
- Data Management Backend Team

Algorithms for Computing and Education (ACE) Lab

Berkeley, California

RESEARCH ASSISTANT

May 2018 - May 2019

- Working to improve Computer Science education, making it both more accessible and easier to learn, through research into different types of problems.
- Developed a system for automatically grading student submissions at scale safely and efficiently, using Redis and RQ, enabling a 80+ person study.

Education

University of California, Berkeley

Berkeley, CA

B.A. IN COMPUTER SCIENCE, MINOR IN ENGLISH

Aug. 2016 - Dec. 2019 (Expected)

- **Major GPA: 3.78, Cumulative GPA: 3.63**
- **Selected Coursework:**

Introduction to Database Systems

Efficient Algorithms and Intractable Problems

Operating Systems

Computer Security

Introduction to Artificial Intelligence

Data Structures

Structure & Interpretation of Computer Programs

Machine Structures

Discrete Math & Probability Theory

Principles & Techniques of Data Science

Concepts in Computing with Data

Skills

Programming Languages: Java, Python, JavaScript, HTML/CSS, C, SQL, R, Go, RISC-V Assembly

Technologies: MapReduce, React, Git, jQuery, Flask, Redis, UNIX, Spark, Windows

Languages: Fluent in both English and Chinese

Projects

bDocs

- A single-page web application for collaborative, real-time, in-browser rich text and code editing.
- Supports synchronized text editing across multiple users, along with importing text documents, synchronized settings (language, font size) and titles, and displaying recently accessed documents.
- Built using **React** and **Semantic UI**. Backed by a **Firebase** Realtime Database.

PaperJS Parsons

- A fully-featured web application, providing an interface to practice Parsons Problems to master Paper.js, a library that allows for graphics scripting/drawing on HTML5 canvases.
- Allows students to run and see the results of their code in-browser, and displays interactive examples for students to compare the results of their submissions with.
- Developed collaboratively as part of a preliminary stage of research into the efficacy of Parsons Problems, a new type of practice problem introduced to improve computer science education.
- Informed future studies, laying the groundwork for improvements in computer science education both within Berkeley and without.
- Written in **HTML** and **JavaScript**, using the Bootstrap, jQuery, and Paper.js libraries.