Emily Hsiao

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EDUCATION

University of California, Berkeley   **Expected Graduation - May 2021**

Intended Major: Computer Science   *Berkeley, California*

- Technical Coursework: CS 61a - Structure and Interpretation of Computer Programs, CS 61b - Data Structures, Math 54 - Linear Algebra and Differential Equations, Data 100 - Principles and Techniques of Data Science, Stat 140 - Probability for Data Science, CS 70 - Discrete Mathematics, Math 53 - Multivariable Calculus
- In Progress: CS 170 - Algorithms, CS 61c - Computer Architecture
- GPA: 3.89
- Member of Statistics Undergraduate Student Association and Taiwanese-American Student Association

VOLUNTEER & WORK EXPERIENCE

Berkeley Research, Evaluation, and Assessment Intern   **August 2018 – Present**

Berkeley Unified School District   *Berkeley, CA*

- Compile and analyze data reports on class profiles, school performance, standardized test results, etc
- Use data warehouse (Illuminate), Microsoft Excel, and data visualization techniques to present data and results

Bridging Berkeley Math Mentor   **January 2018 – Present**

UC Berkeley Public Service Center   *Berkeley, CA*

- Volunteer as math tutor at Berkeley Young Adult Project for middle school students
- Furthered students' education with patience, communication, and creative teaching strategies

PROJECTS

Gitlet   **July 2018**

- Built a miniature version-control system modeled off Github
- Used and experimented with many data structures such as hashmaps, lists (linked lists, array lists, etc), sets, etc.
- Learned how to use serialization, input/output, debugging and testing
- Practiced efficient and transparent communication in small-scale software engineering in a group of four

Bearmaps   **August 2018**

- Built shortest-path finder of city of Berkeley modeled off Google Maps
- Implemented data structures and algorithms such as Dijkstra's algorithm, k-d trees, and A* search
- Applied knowledge of runtime analysis by writing code constrained by runtime

Housing Prices Kaggle Competition   **May 2018**

- Analyzed Kaggle dataset of house characteristics to create machine learning model predicting housing prices
- Used iPython notebook to carry out data cleaning, exploratory data analysis, model training, and model selection
- Implemented basic linear models, principal component analysis, decision trees, neural nets, ensemble learning

SKILLS

- Programming in Python and Java, Git, Excel, data structures, Latex, SQL