Brian Kim

UC Berkeley Class of 2022
Computer Science & Economics Major

Email: s3kim2018@berkeley.edu
Moblie: +1-510-725-1220

Portfolio: https://s3kim2018.github.io/BrianKim-Website/
Github: https://github.com/s3kim2018

Coursework

CS61A: Structure and Interpretation of Computer Programs
CS61B: Data Structures
CS70: Discrete Math and Probability Theory
CS61C: Machine Structures
EE16A: Designing Information Systems
Stats134: Concepts of Probability

Projects

Graph Traversal Visualizer - *Javascript/CSS/HTML*
- Built an web application that visualizes graph traversal algorithms
- Designed a UI where the user can choose the grid density and place walls and weights on nodes
- Visualizes BFS, DFS, Dijkstras, A*, and Prim's algorithm

Chess Engine - *Javascript/CSS/HTML*
- Built a full Chess Game Engine with an UI. Chess rules like promotion and castling were implemented
- Using game trees and alpha beta pruning, built an AI that can look 3 moves forward

Gitlet - *Java*
- Replicated most of Git's features such as committing, branching, and creating a remote repository
- Commits were hashed with SHA-1, and serialized on the ".gitlet" folder

Differential Problems Generator - *Python*
- Using a recursive data structure, built a python script that can generate derivative problems
- The length, numbers, symbols used are all randomly generated
- Teacher has the preference to select the intensity of the types of problems generated

FEC Campaign Contributions Web Mining Program - *Python/Beautiful Soup*
- Used Beautiful Soup to mine campaign contribution data over many years to congressional candidates
- After scatter-plotting the graph, concluded that the Citizens United case increased contributions drastically

Work Experience

Web Assistant for Berkeley's Division of Diversity and Inclusion - *March 2019 ~ Present*
- Updated information, notified events, and supported the website's operational requirements
- Created the blog for Vice Chancellor Oscar Dubón, Jr (hasn't made any blog posts yet)

Academic Intern - *(CS61A, CS61B), January 2019 ~ Present*
- Helped 30+ students learn about OOP, recursion, and data structures
- Emotionally supported students who were struggling in CS classes

UC Berkeley Call Center - *March 2019 ~ Present*
- Called UC Berkeley Alumnus in Engineering, Law, and CNR for fundraising purposes
- Personally raised more than $5000 for the University

The Daily Californian Projects Developer - *March 2019 ~ Present*
- Brainstormed creative content about the Bay that could be put on the site with some front-end work
- Currently Working on a data analysis/visualization project on the air quality in Berkeley

Skills

Fluent in Data Structures and Programming
- Linked Lists, Trees, Bitwise Operations, Hashing, Graph Traversal, Pathfinding
- Able to build large scale programs (most recent individual projects are +2000 lines of code)
- Able to build secure programs with RSA, Secret Sharing, and cryptographic hash functions

Experience in Web and UI Design
- Have maturity in designing webpages that are flexible and animated
- Worked with Java's GUI and pygame before

Experienced in: Java, Python, C++, HTML, CSS, and Javascript
Familiar with: R-Studio, Scheme, SQL, JQuery, and React

Extracurricular Activities and Community Service

Berkeley Political Review - *December 2018 ~ June 2019*

- As a member of the tech team, worked on data analysis quests to prove political statements

Intern for the Ramsar East Asia Center - *June 2017 ~ August 2017*

- Translated documents from Korean to English
- Assisted with public events in order to raise awareness and encourage the preservation of wetlands

Eastern Maine Medical Center Assemble - *December 2017 ~ June 2018*

- With my small friend group, played the violin for patients suffering from Alzheimer's

Habitat for Humanity - *December 2017 ~ June 2018*

- Hosted and organized events such as running a bake sale and a car wash
- With the money raised, went to the Philippines to build portable houses for struggling communities