

## Education

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### University of California, Berkeley

August 2018 - Dec 2021

- B.A. in **Computer Science** and B.A. in **Applied Math**
- Relevant Coursework (**3.94** CS/Math GPA):
  - Algorithms, Machine Structures, Data Structures, Discrete Math and Prob. Theory, Linear Algebra, Multi. Calculus

### International Baccalaureate Diploma

June 2018

- Higher Level Computer Science - 6 out of 7, Higher Level Mathematics - 7 out of 7

## Projects

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### Algebra Worksheet Generator - *Java, Java Swing*

- Desktop application to generate six-problem worksheets of one-variable equations
- Tracks student progress and adjusts the difficulty of problems generated accordingly

### Feedback Form ([jasonkeung.me/feedback-form-frontend](https://jasonkeung.me/feedback-form-frontend)) - *React.js, Bootstrap, HTML/CSS/Javascript*

- Features form validation using regex and a live character counter controlled component, makes POST request to url
- Built to learn and improve React and front-end skills

### Knight's Tour Algorithm Demonstration - *Java, Java Swing*

- Desktop application that uses an algorithm to complete the Knight's Tour in chess and shows a knight piece visiting all 64 squares of the board
- User is able to control moves per second, and the sequence of moves is shown in the chessboard.

### Priority Queue Visualizer - *Java, Java Swing*

- Desktop application developed for a high school teacher to visually demonstrate adding/removing from a binary heap priority queue

## Work Experience

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### Junior Mentor - *Computer Science Mentors (csmentors.berkeley.edu)*

September 2019 - Present

- Lead weekly sections of 4-6 students for CS 70, reteach core concepts, work through CSM worksheets
- Provide inclusive social/emotional support for my students, especially those underrepresented in CS at Berkeley

### Academic Intern - *CS 61A, CS 61B*

January 2019 - September 2019

- Help teach 20+ students object oriented programming, recursive problem solving, data structures and algorithms, and graph traversals in lab, office hours, and exam-prep sections
- CS 61A - Spring '19, Summer '19, CS 61B - Summer '19

### Taekwondo Instructor - *World Martial Arts Center*

November 2017 - June 2018

- Work with 1-2 other instructors to teach Korean martial arts to 20+ children, young teens, and adults
- Develop instructor level leadership and teaching skills over 2 summer leadership programs

## Skills

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### Data Structures and Algorithms

- Fluency in advanced data structures, space/time complexity analysis, and search algorithms over data structures and graphs
- Experience in problem solving, recursive thinking, tree recursion, object oriented programming

### GUI Development

- Experience with the Java Swing library, React.js/Bootstrap, and integrated high school CS command line assignments into graphical desktop applications

### Java, Python, C++, React.js, Bootstrap, HTML/CSS/Javascript

### Linux Environments, Git Version Control, Martial Arts Instruction, Math Tutoring