Thomas Kim

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EDUCATION

University of California, Berkeley | Berkeley, CA **August 2019 - May 2023**

- B.S. in **Electrical Engineering and Computer Sciences**
- Relevant Coursework: Data Structures, Efficient Algorithms and Intractable Problems, Artificial Intelligence, Discrete Mathematics and Probability Theory, Foundations of Data Science, Designing Information Devices and Systems, Multivariable Calculus

Fullerton Union High School **August 2015 - May 2019**

SKILLS

Languages/Tools: AWS S3, Java, Python, HTML/CSS/JS, SQL, Jupyter, Django

Data Structures and Algorithms

- Object-oriented programming and functional programming
- Advanced data structures, search algorithms, asymptotic analysis and time/space complexity analysis

Git Version Control, Docker, SSH, Math and Physics Tutoring

PROFESSIONAL EXPERIENCE

Stroller Inc. | Software Engineer Intern **July 2021 - Present**

- Developed voice cloning app built with Python/Django where users record voice samples and generate text-to-speech in their own voice
- Improved existing voice clone program to effectively function for sentences longer than 100 words
- Utilized AWS Simple Storage Service (S3) bucket into heroku application to work around storage restraints
- Designed intuitive and generalized UI using HTML/CSS to make voice clone application more user friendly
- Created a stroller mapping application to display dynamically moving avatars along paths on Google Maps

PROJECTS

The Enigma Machine | *Java* **March 2020**

- Created a simulator for a generalized version of the Enigma Machine used in World War II
- Replicated physical components of the machine through an object-based view of programming
- Utilized cyclic permutations, Scanners, and HashMaps to encrypt and decrypt machine input

Gitlet | *Java* **May 2020**

- Implemented a version-control system that supports saving and restoring versions of files, tracking history, and merging related file versions
- Required a strong understanding of trees, object-oriented programming, and serialization
- Used Linked Lists, HashSet, HashMap, Files, and Tree manipulation

Lines of Action | *Java* **April 2020**

- Completed a program to play Lines of Action between two players
- Implemented game trees and heuristics to create an AI capable of forcing wins within a small number of moves
- Applied Lists, Arrays, Formatters, Collections, and Patterns to create a valid game board and move set

Scheme Interpreter | *Python* **November 2019**

- Created an interpreter to read, evaluate, and display results of Scheme expressions
- Demonstrated an understanding of tree-recursion and recursive programs

LEADERSHIP AND EXTRACURRICULARS

Data Science Society | Berkeley, CA **August 2020 - December 2020**

- Dedicated 10hrs/week to explore and process financial market datasets to generate a semester-long research project
- Utilized Jupyter Notebook to efficiently combine technical data and create a visualization of the performance of 10 NASDAQ stocks
- Collaborated with a diverse team of 6 to create a 25-slide final presentation deliverable for a bi-annual Symposium

Volunteer Peer Tutor | Fullerton, CA **August 2018 - May 2019**

- Led biweekly tutoring sessions to help students taking AP Physics 1 and 2, AP Calculus, and IB Mathematics SL/HL
- Explained necessary course material and reviewed key concepts from lectures and homework assignments
- Provided efficient work environments for students involved in extracurricular activities