

# MAX X. LIN

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## EDUCATION

### UC BERKELEY

B.A. Computer Science

Expected May 2021

GPA: 3.662 / 4.0

### Hercules High

Graduated June 2017

GPA: 3.9/4.0

## SKILLS

### PROGRAMMING

Java • Python • C • C ++ •

PostgreSQL • HTML • CSS

## COURSEWORK

### CURRENT

CS161: Computer Security

CS186: Databases

CS188: Artificial Intelligence

### COMPLETED

CS170: Efficient Algorithms

CS70: Discrete Math & Probability

CS61C: Machine Structures

CS61B: Data Structures

CS61A: Structure & Interpretation of  
Computer Programming

Data100: Principles and Techniques  
of Data Science

Data8: Foundations of Data Science

EE16A/B: Designing Information  
Devices and Systems I/II

Math54: Linear Algebra

Math53: Multivariable Calculus

## LINKS

GitHub: [github.com/xmaxlin](https://github.com/xmaxlin)

LinkedIn: [/in/maxxianglin](https://in.linkedin.com/in/maxxianglin)

Website: [xmaxlin.github.io](https://xmaxlin.github.io)

## EXPERIENCE

### UC BERKELEY EECS | TUTOR

June 2019 – August 2019 | Berkeley, CA

- Worked as a member of course staff for CS61C (Machine Structures)
- Gave mini-lectures in discussions and created content review worksheets
- Taught C, RISC-V, CPU Datapath Design & Pipelining to groups of 5 & 10 students
- Created tutoring videos going over Caches, Data-Level Parallelism, and VM

### Computer Science Mentors | JUNIOR MENTOR

February 2019 – May 2019 | Berkeley, CA

- Served as a junior mentor for CS61C (Machine Structures)
- Provided one-on-one tutoring services to struggling students
- Gave weekly mini-lectures and went over worksheets with a section of 6 students

### UC BERKELEY EECS | ACADEMIC INTERN

June 2018 – August 2018 | Berkeley, CA

- Volunteered as a lab assistant for CS61B (Data Structures & Algorithms)
- Managed and graded quizzes at the start of every lab session
- Explained concept behind several HashMaps, Heaps, R-B trees, WeightedQU
- Held reviews going over Dijkstra, A\*, BFS, DFS search algorithms

## PROJECTS

### Guava Bots | CS170 PROJECT

- Created a Python routing algorithm that finds lost objects with an adversary
- Used NetworkX's Steiner Trees and a multiplicative weight framework (based on adversary) to find lost objects and route to a home node efficiently

### Bear Maps | CS61B PROJECT

- Implemented a Java mapping application of Berkeley inspired by Google Maps
- Designed using A\* algorithm in Java using the great-circle distance as a heuristic
- Supported map rasterization and zoom using quadtrees
- Implemented name-search autocomplete capabilities with Trie trees

### World Gen | SODA HACK PROJECT

- Built an interactive 2D game in Java where user actions affect environment
- Used StdDraw from the Princeton Standard Library to create GUI
- Attempted to integrate Oculus VR support using Unity3D

## AWARDS AND HONORS

May 2019

1<sup>st</sup> Place CS170 GuavaBot Algorithms Competition

April 2017

1<sup>st</sup> Place PiE High School Robotics Competition