

# Eric Tang

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## education

**University of California, Berkeley** *Expected 2022, CS GPA: 4.0, GPA: 3.73, Dean's List*  
B.S. Electrical Engineering and Computer Science (EECS)  
Activities: The Berkeley Project, Computer Science Mentors, IM Basketball

## skills

Languages: Java, Python, C, SQL  
Other: Numpy, Pytorch, sklearn, Apache Spark, OpenMP, Git, Linux, Mandarin (Bilingual Proficiency),

## experience

**Crommie Group** *Undergraduate Researcher, April 2019 - now*

- Assisting in research on local electronic, magnetic, and mechanical properties of atomic and molecular structures at surfaces, specifically working in microscopy and the creation of atomically clean graphene based 2D Field-Effect Transistors.
- Working on various side projects involving maintenance and development of high precision transfer systems for 2D materials and Chemical Vapor Deposition systems.

**CS 61B - Data Structures Course Staff** *Undergraduate Student Instructor (TA Sp20, LA Su19, Fa19)*

- Helping to teach CS 61B - Data Structures as a part of course staff. Provide support to students through holding weekly discussion sections of 30+ students, office hours, developing course review content, and assisting students through a variety of assignments, including labs, projects, and homework.

**Computer Science Mentors** *CS 70 Mentor, August 2019-now*

- Lead weekly sections for students in CS70 - Discrete Math and Probability. Develop weekly extra practice problems and lecture material in addition to reviewing CSM worksheets

**Hormozdiari Lab** *Research Assistant, June - August 2017*

- Worked on quantitatively comparing the performance of various algorithms for the analysis of Hi-C genomic data through their performance in identifying chromatin interactions and topographically associating domains,
- Interacted with a variety of data processing software in order to create functional interaction matrix inputs to the algorithms from raw Hi-C data.

## projects

**Self Driving Car Simulation - Duckietown**

- Using an driving simulator to program a simulation of a self driving car with integration of image processing, object detection, image segmentation, and trajectory optimization using pytorch, sklearn, and numpy.

**RISC-V CPU - CS 61C (Computer Architecture)**

- Designed a fully functioning 32-bit pipelined RISC-V datapath from scratch using the logic simulator Logisim

**Build Your Own World - CS 61B (Data Structures)**

- Fully designed a 2D tile based game using an existing tile rendering engine, including an algorithm to randomly generate valid worlds, and various UI and gameplay features.

## coursework

CS 61A - Structure and Interpretation of Computer Programs  
CS 61B - Data Structures and Algorithms  
Math 53 - Multivariable Calculus  
Math 54 - Linear Algebra and Differential Equations  
CS 61C - Machine Structures  
CS 170 - Efficient Algorithms and Intractable Problems  
MSE 45 - Introduction to Materials Science and Engineering  
EE16A - Designing Information Devices and Systems  
Physics 7A/B - Mechanics, Thermodynamics, E&M

Spring 2020 Coursework:

CS 162 - Operating Systems  
CS 161 - Computer Security  
EE 16B - Designing Information Devices and Systems II