Eric Tang

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EDUCATION

UC BERKELEY

BS in Electrical Engineering and Computer Science
August 2018 - Present | Berkeley, CA
College of Engineering
Cum. GPA: 3.84 / 4.0
Major GPA: 3.97 / 4.0

COURSEWORK

UNDERGRADUATE

*Machine Learning
*Optimization Models
**In progress*
Computer Architecture
Efficient Algorithms
Computer Security
Operating Systems
Data Structures
Multivariable Calculus
Info Devices and Systems
Linear Algebra
Discrete Math and Probability

SKILLS

LANGUAGES

Java • Python • C • Golang • SQL • CSS • HTML • Swift • Javascript

TOOLS

Git • Linux • XCode • Docker

FRAMEWORKS AND LIBRARIES

Numpy • Pandas • OpenMP • Sklearn • NetworkX • OpenCV • Django • Keras • Firebase

EXPERIENCE

ACCENTURE LABS | Technology R&D Intern

June 2020 - August 2020 | San Francisco, CA

- Worked on the Systems and Platforms team on a **generative design** project centered around optimizing warehouse layouts using continuous time Markov Chain simulations of robotic agents for real time congestion modeling.
- Designed and implemented layout generation, evaluation, and optimization algorithms in **Python** for scoring of the warehouse layouts using graph representations of the space.

RESEARCH

UC BERKELEY EECS - DAWN SONG GROUP

August 2020 - Present | Berkeley, CA

- Working on creation of benchmark dataset for predicting human emotional responses to visual stimuli with deep neural networks under Dan Hendryks and Prof. Dawn Song. Using **AWS MTurk, HTML, Javascript and Python** to handle labeling of 50,000 scraped videos.

UC BERKELEY PHYSICS - CROMMIE GROUP

April 2019 – Present | Berkeley, CA

- Developed optimized molecule orientation classification algorithms on time series image data using **numpy/scikit/sklearn**. Currently working on training CNNs using **Keras** on Monte Carlo simulated particle track data for classification of subdiffusive behavior on sparse experimental data.
- Co-author pending publication - Imaging Gate-tunable Molecular Density on a Graphene Transistor.

LBNL MOLECULAR FOUNDRY - RAJA GROUP

Feb 2020 - May 2020 | Berkeley, CA

- Worked on development of **ScopeFoundry** python library for automation of the assembly of 2D devices. Helped design software pipeline for interfacing with various hardware components, using object segmentation to identify monolayer materials for transfer, and using autofocus for increased ease of the transfer process.

TEACHING

CS 61B - DATA STRUCTURES | Undergraduate Student Instructor

January 2020 – Present | Berkeley, CA

- 3x TA for Data Structures. Teach weekly sections, hold office hours, for course of 1500 students. Develop and maintain course autograder software ASAG using **Docker** and **AWS**.

PROJECTS

THE DAILY CAL APP

Winter 2020 | Xcode, Swift, Alamofire

- Developed backend for native IOS news app for The Daily Californian newspaper, using **Alamofire** for handling HTTP requests, **Core Data** for persistent CRUD, and **Firebase** for caching optimizations, all written in **Swift**.

PINTOS OS | Operating System

Spring 2020 | C

- Designed and implemented a **file system**, **userspace programs** + **syscalls**, **scheduling algorithms**, **user space allocator**, and **synchronization primitives** in a team of four.