Eric Tang

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EDUCATION

UC BERKELEY

BS in Electrical Engineering and Computer Science
August 2018 - Present (Expected May 2022) | Berkeley, CA
College of Engineering
GPA: 3.81 / 4.0
Major GPA: 3.92 / 4.0

SKILLS

LANGUAGES

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

TOOLS

Git • Linux • XCode • Docker • AWS

FRAMEWORKS AND LIBRARIES

Numpy/Pandas/Sklearn • OpenMP • MPI • Django • CUDA • Pytorch • Tensorflow • Firebase

COURSEWORK

GRADUATE

*Applications of Parallel Computers

UNDERGRADUATE

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

EXPERIENCE

ACCENTURE LABS | Technology R&D Intern

June 2020 - August 2020 | San Francisco, CA

- Worked with Systems and Platforms team on optimizing warehouse layouts with continuous time Markov Chain simulations of robotic agents for congestion modeling.
- Designed and implemented layout generation, evaluation, and optimization algorithms in **Python**. Presented work to Accenture Labs leadership and submitted project for patent pending approval.

RESEARCH

BERKELEY ARTIFICIAL INTELLIGENCE RESEARCH | Researcher

August 2020 - Present | Berkeley, CA

- Working on creation and testing of benchmark datasets for using computer vision to predict emotional response to video data, and for using transformer based models to solve challenging mathematics problems via URAP under Prof. Dawn Song.
- Publication: **Measuring Mathematical Problem Solving with the MATH Dataset** currently under review at ICML 2021.

CROMMIE GROUP | Researcher

April 2019 – Present | Berkeley, CA

- Developed optimized molecule orientation classification algorithms on time series image data using **numpy/scikit/sklearn**. Currently designing CNNs in **Keras** for classification of subdiffusive particle behavior on sparse experimental data in collaboration with members of the Alivisatos group.

LBNL MOLECULAR FOUNDRY | Research Affiliate

Feb 2020 - May 2020 | Berkeley, CA

- Worked on development of **ScopeFoundry** python library for automation of the assembly of 2D devices. Helped design **Python** 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 | Lead Infrastructure TA

January 2020 – Present | Berkeley, CA

- 4x TA for Data Structures course taught in **Java**. Teach weekly sections and hold office hours for course of 1500 students. Work as head infrastructure TA to help develop course autograder software ASAG, and course grading infrastructure tool **Beacon**, using **SQLAlchemy** and **Flask** written in **Python**.

PROJECTS

THE DAILY CAL APP

Winter 2020 | Xcode, Swift, Alamofire

- Developed backend for native IOS news and events 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**.

DUCKIETOWN | Self Driving Car Simulator

Fall 2019 | Sklearn, Numpy, OpenCV

- Used a driving simulator to program a simulation of a self driving car with integration of image processing and segmentation, object detection, and trajectory optimization for ML@B Decal.