Yuen Ler Chow

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Willing to relocate: Anywhere

Work Experience

Research Intern

Broad Institute - Cambridge, MA
July 2020 to Present

● Project: “Predicting compound mechanisms from cell morphology readouts using variational autoencoder latent space arithmetic.” Pending publication at PLOS Computational Biology.
● Skills gained: Deep Learning (Tensorflow and Keras), Data Science (Pandas, numpy, matplotlib, seaborn)

Founder; Director of Computer Science Track

GREATER BOSTON STEM PROGRAM (gbSTEM) - Brookline, MA
March 2020 to Present

● Created a free STEM program that provides computer science, math, and engineering enrichment to elementary school students in Greater Boston. Developed Comp Sci curricula. Coordinated and led training sessions, orientation, hackathons.
● >600 students taught by >160 instructors

Student Researcher

SUMMER SCIENCE PROGRAM - Boulder, CO
June 2020 to July 2020

● Remotely operated a research-grade telescope to take images of the near-earth asteroid 1994 LY; wrote programs to calculate the asteroid's orbital elements based on its positions in the sky. Results were published by the Minor Planet Center.
● Skills gained: college-level Astronomy, Physics and Math; advanced Python programming

Student Engineer

MIT LINCOLN LAB BEAVER WORKS SUMMER INSTITUTE - Cambridge, MA
June 2019 to August 2019

● Programmed a race car, integrating sensors and collision avoidance logic, to teach machines how to visually recognize objects, so as to autonomously navigate complex racetracks
● Skills gained: Computer Vision, Robotics, Control Theory

Education

A.B in Computer Science and Statistics

Harvard University - Cambridge, MA

September 2021 to Present

High school diploma
Brookline High School - Brookline, MA
September 2017 to June 2021

Skills

- Python (5 years)
- Java (5 years)
- Javascript (4 years)
- C++ (1 year)
- HTML (3 years)
- CSS (3 years)
- Linux (3 years)
- React.js (1 year)
- React Native (3 years)
- Android Studio
- Google Firebase (3 years)
- Pandas (2 years)
- Tensorflow (2 years)
- Keras (2 years)
- Numpy (3 years)
- Sklearn (2 years)
- Matplotlib (2 years)
- Seaborn (2 years)
- Github (3 years)
- Jupyter notebooks (3 years)
- Machine Learning (2 years)
- Statistics (3 years)
- User Interface (UI) (3 years)
- Software Development (5 years)
- Front-end development (4 years)
- Back-end development (3 years)

Publications

Predicting drug polypharmacology from cell morphology readouts using variational autoencoder latent space arithmetic
https://www.biorxiv.org/content/10.1101/2021.09.02.458673v1
September 2021

Additional Information

Relevant Coursework: CSCI S-20: Discrete Mathematics for Computer Science, CSCI S-109A/STAT 121A: Intro to Data Science, CS121: Intro to Theoretical Computer Science, CS61: Systems Programming, STAT110: Intro to Probability

Relevant Advanced Placement (AP): Computer Science A, Calculus BC, Statistics, Physics C: Mechanics, Physics C: Electricity & Magnetism, Chemistry, Biology, Psychology, Microeconomics, Macroeconomics - all highest score of 5