

ELIAS OLIVER CHANG

1675 Amberwood Dr Apt 1 South Pasadena, CA · oliverc1622@gmail.com · (818) 271-9829

EDUCATION

Pomona College

BA Computer Science and Math

Claremont, CA
Sep 2018 - May 2022

EXPERIENCE

Data Science Research Circle

Data Scientist

Claremont, CA
February 2020 - June 2020

- Created a logistic regression model to show the probability of being searched by the police given various factors such as race, sex, and time of day, revealing a true positive rate of 74%
- Wrote R functions to efficiently query 25 datasets with SQL commands, then cleaning and merging them for the model
- Web scraped Google search results to find coordinates of cities and states instead of paying \$200 for Google Maps API

Pomona College Computer Science Department

Research Assistant

Claremont, CA
Aug 2019 - Dec 2019

- Improving run time for an AI system called Comme-ill-Flow, which matches character performance to appropriate social context
- Creating tensors of social attributes e.g. Relationships, Traits, and Networks
- Inputting tensors in TensorFlow to calculate character's most likely action quicker

Caltech, Tsao Lab

Neuroscience Research Assistant

Pasadena, CA
May 2019 - Aug 2019

- Ran a behavioral experiment on a photostimulated mouse in the MPA-vPAG circuit. Goal of experiment was to see if the mouse would run towards different object locations/colors when that specific neuron was stimulated while head-fixed.
- Soldered ADNS-9800 laser sensors to Arduino Dues, which sent movement data to MATLAB via serial communication
- 3D printed laser sensor mounts and attached them to a ball to track the movement of a mouse
- Created histograms and heatmaps, then made a movie of the mouse's eye with live plotting

Caltech, Tsao Lab

Neuroscience Lab Assistant

Pasadena, CA
Jun 2018 - Aug 2018

- Built scales to measure the weight of rodents
- Wrote MATLAB GUI to deliver graph data of the weight in Kg and give running average
- Used a laser cutter to cut out box designs; used SketchUp to design boxes

SKILLS

Programming Languages:	Java (proficient), Python (proficient), MATLAB (proficient), R (proficient), C (novice)
Technical Tools:	SQL, git, command line interface, Arduino, Ubuntu
Languages other than English:	Spanish (native speaker)

PROJECTS

Data Science Research Circle Bookdown R, SQL

<https://st47s-datascience.github.io/Chang-DSRC2020/>

Working on an R bookdown to showcase my team's research from the 2020 Spring semester and summer

AWARDS

Cal Grant Recipient

California Student Aid Commission
2018, 2019

Pell Grant Recipient

Federal Student Aid
2018, 2019

NCAA DIII Cross Country National Champions

NCAA
2019