Matthew Tang

matthewtang@berkeley.edu
(949) 431-3164
matthew29tang.github.io

Education

University of California, Berkeley **2018 – Present**
B.S. Electrical Engineering and Computer Science (EECS) | **GPA 4.0**
Regents' and Chancellor's Scholar

Relevant Coursework (* in progress)

[CS61B] Data Structure & Algorithms
[CS70] Discrete Math & Probability
[CS61A] Structure of Computer Programs
[EE16A/B] Designing Information Devices & Systems I and II
[CS170] Efficient Algorithms*
[CS188] Artificial Intelligence*

Projects

ShareFund – LA Hacks **2019**
- Democratic hedge fund web app that uses algorithmic trading and machine learning
- Back-end: JavaScript & Python, Frontend: React, Team size: Three

Aux4All – Cal Hacks **2018**
- Egalitarian song queue and voting system mobile app to bypass the limitation of single device connection to a Bluetooth speaker.
- Back-end: JavaScript, Frontend: React Native, Team size: Three

BonvoyApp – Angel Hacks Global Hackathon **2018**
- Travel itinerary generator mobile app with parameters such as location, budgets, interests
- Back-end: JavaScript, Frontend: React Native, Team size: Three

Autonomous Vehicle – MIT Beaver Works Summer Institute **2017**
- Developed algorithms for autonomous robot cars using a potential field PD controller (LiDAR), computer vision (OpenCV), and AR tag detection to navigate hazards. Team size: Five

Experience

USC Viterbi Interaction Lab – Summer Research Intern **2019**
- Created a model to improve human trust and cooperation with socially-assistive autonomous robotic systems.
- Designed an action selector for the robot to estimate human beliefs and take actions to correct them using reinforcement learning for dynamic environments with uncertainty.

UC Irvine Khine Lab – Research Intern **2015 – 2017**
- Design wearable biomedical devices by fabricating nanotechnology-based sensors and incorporating circuitry. Programmed in MATLAB, Arduino, and Processing.
- Presented at AAAS Annual Conferences as first author.
  "Design & Fabrication of Nanowrinkled Thin Film Sensors for a Finger Flexion Assessment Glove" **2018**
  "Fabrication & Evaluation of Gold Dry Electrodes in a Long-Term Wireless Heart Monitor System" **2017**

Golden Gate Science Olympiad – Tournament Director **2018 – Present**
- Host annual Science Olympiad invitational with 23 events for 1000+ high school students
- Improve/update website, developed new resource center page using Jekyll, oversee operations/room reservations, meet weekly for planning purposes. 100+ hours service.

Honors & Awards

- Dean's Honors List, Edward E. Kraft Award (Freshman 4.0 GPA) **2019**
- MIT Beaver Works Autonomous Robot Car Grand Prix: 2nd Place **2017**
- Sigma Xi International Scientific Research Honor Society Associate Member **2017**

Activities

Eta Kappa Nu (EECS) Honors Society, Berke1337 (Cybersecurity), Regents & Chancellor's Scholars Association

Skills

Python, Java, JavaScript, React, ROS, RViz, LaTeX, Git, C, MATLAB, Arduino, AutoCAD