VIVIAN TAO

vtao@g.hmc.edu | 774-407-4798 | Natick, MA | https://v-tao.github.io/

EDUCATION
Harvey Mudd College, Claremont, CA   Expected May 2025
B.S., Computer Science and Mathematics   4.0 GPA

RELEVANT COURSEWORK
Data Structures; Computability and Logic; Probability & Statistics; Engineering Systems; Differential Equations; Linear Algebra; Discrete Mathematics; Single & Multivariable Calculus; Principles & Practice: Computer Science

SKILLS
Programming: HTML5, CSS, Java, Javascript, Python, Racket (basic), MongoDB, C++, Git, R
Libraries: Bootstrap, React, jQuery, Node.js, Express.js, Cloudinary, PassportJS, Mongoose, Numpy, Pandas, Matplotlib, scikit-learn, p5js, Discord.js, MySQL (basic), PyTorch (basic)
Other: Mandarin Chinese (intermediate), Spanish (intermediate)

WORK EXPERIENCE
Student Researcher at AMISTAD Lab, Harvey Mudd College, Claremont, CA   May 2022-Present
- Read and understand current Neural Architecture Search (NAS) methods
- Collaborate with three students and a professor to develop a research question and design experiments
- Utilize Python libraries to empirically analyze improvability of neural architectures, NAS search methods, and NAS search spaces

Computer Science Department Grader/Tutor, Harvey Mudd College, Claremont, CA   August 2022-Present
- Grade homework assignments for Data Structures based on style and correctness
- Tutor students on concepts such as pointers, trees, hash tables, and priority queues

ASHMC Webmaster, Harvey Mudd College, Claremont, CA   August 2022-Present
- Manage and update the website for the Associated Students of Harvey Mudd College using WordPress

Computer Science Department Student Ambassador   January 2023-Present
- Plan social events for Harvey Mudd College computer science department

Student Researcher at ALPAQA Lab, Harvey Mudd College, Claremont, CA   September 2021-May 2022
- Collaborated with three students and a professor to create a web simulation of Braitenberg Vehicle motion for the Minds and Machines class at Pitzer College using p5.js
- Introduced the research team to Kanban project management and served as primary project manager
- Link: https://hmc-alpaqa.github.io/braitenberg-vehicles/

PERSONAL PROJECTS
Student Simulator - https://v-tao.github.io/studentsim/
- Web Game that simulates the struggle of balancing academics, fun, and health as a high schooler
- User Interface implemented with React and CSS

Nobles Theatre Collective Website - https://nobles.edu/ntc
- Website for theatre program of the Noble and Greenough School, with an "edit" mode for students to edit and maintain without coding knowledge

Coronavirus Daily Percent Positive Statistical Model - https://github.com/v-tao/covid_project
- Multiple Regression Model that predicts a state's daily percent positive based on factors such as bar capacity and indoor social gathering limit, implemented through scikit-learn

AWARDS
Harvey Mudd First-Year Platt Prize   September 2022
- Awarded to one first-year student who demonstrates excellence in academics and community

Noble and Greenough Computer Science Award   May 2021
- Awarded to one graduating senior who demonstrates excellence in computer science