Zachary Zhu
11408 Pacific Shores Way, San Diego, CA 92130

📱 858-354-7728 | ✉ zacharyzhu@berkeley.edu | 🖥 https://github.com/zacharyzhu2023

Education

College: University of California, Berkeley   **Graduation Date**: May 2023
GPA: 3.93   **Major GPA**: 3.95
Major: Computer Science and Economics
Coursework: Data Structures, Computer Architecture, Discrete Math and Probability Theory, Database
Systems, Microeconomic Analysis, Financial Economics, Econometric Analysis

Work Experience

Software Verification and Validation Intern   *June 2020-Aug 2020*
Hologic, Inc.
- Designed and implemented new communication layer between automated assay-to-answer instruments (Panther System) and laboratory information systems (LIS)
- Developed a simulated digital assay and patient database to test new framework and ensure all standardized laboratory messaging protocols are supported
- Successfully created a C++/CLI interface to facilitate functionality between the new communication layer (C++) and LIS Simulator GUI (C#)

Factor Development Intern   *June 2019-Aug 2019*
Denali Advisors LLC
- Defined, optimized, and benchmarked portfolio model to develop the size and B/M factor against annual returns in the global market using feature engineering with Matlab
- Utilized data visualization tools to present clear and concise stock market analysis

Behavioral Economics Research Assistant   *January 2018-Aug 2019*
San Diego State University
- Conducted literature review for Dr. Frantz, behavioral economics professor
- Edited and proofread *The Beginnings of Behavioral Economics*, published Oct 2019
- Created new curriculum for Introduction to Behavioral Economics class for common behavioral fallacies, including the endowment effect and loss aversion

Activities

Political Computer Science   *August 2019-Present*
- Created data visualization of a Pro-Publica dataset with React & Python Pandas library to analyze Facebook ad targeting from political candidates for the 2020 primary and presidential elections
- Conducted statistical significance test with Python and Microsoft Excel to analyze housing segregation across Alameda County census tracts from 1970 to present
- Developed backend REST framework with Django to create an app and database for a comparison between the relative performance of countries on DARP and gun control

Intercollegiate Finance Journal   *August 2019-Present*
- Published article about socioeconomic and financial aid trends of undergraduates at UC Berkeley
- Produced content for weekly podcast about data privacy and technology in the 21st century
- Authored exposition about birth tourism and its relation to birthright citizenship in Western nations, focusing on the United States

Skills

Programming Languages: Python, Java, C/C++, Matlab, SQL
Technology/Framework: Xcode, Windows, Win32 API, Git, Django, React, Pandas