Yi Heng Joshua Wu

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EDUCATION

University of California, Berkeley Graduating May 2022
Bachelor of Arts in Data Science & Economics Berkeley, CA
Cumulative GPA: 3.86/4.00

- **Relevant Courses**: Data Structures, Structures and Interpretation of Programs, Principles and Techniques of Data Science, Applied Econometrics, Research & Data Analysis, Behavioral Economics
- **Activities**: Undergraduate Research Assistant at the Moore Accuracy Lab, Haas School of Business
- **Awards**: Hong Kong Scholarship for Excellence Scheme, Dean's List

PROJECTS

Analyses

- **Belief Update Analysis**: employed **k-means clustering** to understand trends in **Bayesian belief update**
- **COVID19 Analysis**: constructed **classification** models with **random forests** and utilized **principal component analysis** to estimate mental health impacts of COVID-19 on US demographics
- **Happiness Analysis**: utilized **Spearman's correlation coefficient** to examine the relationship between country's happiness index and macroeconomic variables including GDP, crime rates, and inequality
- **Social Media Analysis**: examined the relationship between social media usage and extroversion controlling for depressive symptoms with **multivariate regression** and self-report surveys

Design & Implementation

- **BYOW**: designed and implemented a tile-based explorable engine using **Java** and the StdDraw library. The engine supports user-interaction and generates pseudo-random worlds for avatar to move around
- **GITLET**: employed **test-driven development** practices to design and implement a **version-control system** with Java that mimics some features of git, including add, commit, checkout, merge, and more
- **ANTS**: implemented a simple version of the game plants vs. zombies with concepts of **object-oriented programming** in python. In the game, ants must protect the Queen as the bees invade the territory

EXTRACURRICULARS

Moore Accuracy Lab, Haas School of Business Fall 2020 – Present

- **Project Lead** for Overconfidence in Amazon Rekognition. Utilizing **AWS Lambda** and **S3** with **Amazon Rekognition API** to generate object labels for ~1500 images to test for overconfidence
- **Project Lead** for Overconfidence in Google Vision. Employed **Google Cloud's Vision API** to illustrate overconfidence displayed by 9000+ objects associated confidence ratings against MTurk reviewers

Global Leadership Organization, Berkeley Chapter Fall 19 – Spring 20

- **VP of Internal:** Facilitated 4 social events with 80%+ attendance ranging from retreats to socials
- Initiated the chapter re-structuring from committees to project-based teams to enhance engagement

UC Berkeley Public Service Center Spring 19 – Spring 20

- Mentored 10+ scholars to improve 3+ reading levels for Berkeley United for Literacy Development

SKILLS & INTERESTS

- *Tools:* Python, Java, SQL, R, Stata, Tableau, Excel VBA & Macros, LaTex, HTML5, CSS, JavaScript
- *Libraries*: Pandas, numpy, regex, dplyr, tidyverse, scikit-learn, scipy, stats_model
- *Visualization:* matplotlib, seaborn, ggplot, plotly, d3
- *Languages:* English, Mandarin, Cantonese