

# Jonathan Min

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## EDUCATION

### University of California, Berkeley

*Bachelor of Arts in Statistics and Applied Mathematics (Emphasis in Economics/ Data Science)*

**Cumulative GPA:** 3.957

**Graduation:** May 2023

**Selected Coursework:** Principles & Techniques of Data Visualization · Probability Theory · Concepts of Statistics · Linear Modelling · Time Series · Causal Inference · Linear Algebra · Numerical Analysis · Real Analysis (IP) · Financial Economics

## WORK EXPERIENCE

### University of California, Berkeley

*Undergraduate Student Instructor (Macroeconomic Analysis)*

Berkeley, CA

*Jan 2021 – Present*

- Serving as a student instructor for 500 students in Berkeley's upper-division macroeconomics course, committing 20+ hours per week to facilitate lectures and sections, meet with course staff, and devise practice problems for the class.
- Facilitating 2 sections (each with 30 students), devising a curriculum that effectively builds both quantitative and qualitative skills to boost their confidence with macroeconomic concepts, Excel, and analytical techniques.
- Hosting office hours for 5 hours per week to offer tailored assistance for students, building general skills like quantitative analysis, critical thinking, and Microsoft Excel.

### University of California, Berkeley

*Research Assistant (Life Cycle Consumption with Hyperbolic Preferences)*

Berkeley, CA

*Dec 2021 – Present*

- Simulating the standard model of life-cycle consumption with hyperbolic preferences (as opposed to the outdated asymptotic preferences model), utilizing R to recreate the model, run trials with different parameters, and compare results.
- Utilized the Method of Simulated Moments to estimate the optimal parameters of the life-cycle consumption model by minimizing the distance from the simulated data moments and model moments.

*Research Assistant (Rational Inattention, Networks, and the Propagation of Macroeconomic Shocks)*

*August 2021 – Dec 2021*

- Visualized the Input-Output matrices of the United States as a user interactive graph, utilizing Python's NetworkX library to include information like the magnitude and direction of relationships between goods.
- Conducted exploratory data analysis on inflation and Input-Output Matrix data from the Bureau of Labor Statistics, querying and examining the data with PostgreSQL.

## LEADERSHIP AND ACTIVITIES

### Microfinance at Berkeley

*Project Manager | Former Senior Strategy Consultant*

Berkeley, CA

*Dec 2021 – Present*

- Spearheaded a data driven approach within my team of 5 consultants to provide quantitatively driven recommendations to small businesses on geographic expansion, optimal pricing, and competitor performance.
- Advised 4 small businesses in Berkeley, optimizing average revenues by 10% on average by designing a model on Excel that determined the optimal vendor from features like box surface area, shipping fees, and business preference weights.

## PROJECTS

### Game Feature Testing (R)

*Oct 2021*

- Conducted numerous A/B tests on 2 different versions of a mobile game through parametric and non-parametric hypothesis tests, correcting extreme p-values via the Bonferroni method.

### California AQI (Python)

*Aug 2021*

- Utilized SQL to query data on regional racial demographics (from the U.S. Census) and AQI (AirNow.gov) in California, visualizing the cleaned dataset with Python.
- Implemented a multiple linear regression model to predict a region's AQI from a variety of features (like African American population density, median ozone PPM, region) selected via principal component analysis.

## SKILLS & INTERESTS

**Languages:** Python (Numpy, Pandas, PyTorch (familiar), SciPy, Sklearn) · R · Stata · Tableau (familiar) · HTML · Java

**Statistics/Visualization:** Matplotlib · Plotly · Seaborn · ggplot2 · SQL · ANOVA · A/B Testing · Bootstrapping · Inference

**Machine Learning/General:** Linear/Logistic Regression · Decision Trees · k-means · KNN · PCA · Gradient Descent

**Interests:** Information Theory · Esports · Spikeball · Boulderling · Language Learning · Vinyl Collecting · Animation/Film