

MATTHEW GUTIERREZ

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Education

University of California, Berkeley
BA Data Science; Economics

Berkeley, CA

Work

Microfinance at Berkeley

Project Manager

Berkeley, CA

Dec 2020 - May 2021

- Led a team of 6 associates in improving business for local restaurant The Bussdown
- Acquired a loan of \$15,000 for Mad Seoul from a non-profit Kiva

UC Berkeley Disabled Students' Program

Lead Proctor

Berkeley, CA

Nov 2019 - Present

- Trained dozens of new hires on company workflow and FERPA
- Provided support and accommodations to thousands of students

Berkeley Student Cooperative

House Manager

Berkeley, CA

May 2020 - Present

- Issued house bills, expenses and finances for a house of 140 people
- Frequently dealt with conflict resolution bolstering my communication skills

Various Companies

Math Instructor

Los Angeles, CA

Jan 2016 - Jan 2020

- Worked with over 100 students on topics ranging from probability to calculus
- Companies include: Santa Monica High School, Kumon and Mathnaisum

Projects

Markov Chain Monte Carlo Decoder

Python, Pandas, Sklearn

- Decoded subsection encryption for English alphabet using Metropolis-Hastings Algorithm.
- Statistically determined the best decoder among 4×10^{26} options

Personal Website: mmgutierrez.com

HTML, CSS, JavaScript

- Manipulated and created objects using JavaScript to improve functionality and user interaction
- Implemented Dark Mode to improve UI/UX
- No use of third party website builders

San Francisco Development Suitability and Network Analysis

ArcGIS, SQL

- Conducted analysis in search of habitable land in San Francisco using USGS DEM data
- Used SQL queries to transform existing data fields and create sufficient weighing parameters
- Analyzed network impedance parameters to find optimal location for the development

Cycling Power Estimator (In Progress)

Python, Pandas, SQL

- Saw demand for accurate estimated cycling power data but the wildly incorrect power estimates from Strava
- Intending to cross reference real power data—collected from an expensive power meter—to my estimates
- Process will require pulling time series weather data and combining it with a recreation of Strava's estimator

Statistics Data Science · Methods and Estimation · Probability · Time Series · Inference

Economics Behavioral · Econometric Analysis · Econometric Applications · Financial · Supply Chains

Computer Science Algorithms · Data Structures · Computer Programs and Structures

Skills and Interests

Programming Python · Java · R · SQL · ArcGIS · HTML · CSS · JavaScript

Libraries Pandas · Numpy · Seaborn · Matplotlib · Sympy · Sklearn

Interests Soccer · Running · Cycling · Education · Behavioral Economics · Motorsport