

EDUCATION

University of California, Berkeley	May 2025
B.A. Economics	
Dean's List Scholar, John & Elliott Wheeler Scholarship	
London School of Economics	July 2022
University of California Education Abroad Program	

RELEVANT COURSEWORK

Machine Learning and Data Analytics, Principles and Techniques of Data Science, Applied Econometrics, Probability for Data Science, Data Structures, Linear Algebra and Differential Equations, Multivariable Calculus, Global Poverty and Impact Evaluation, Labor Economics, Health Economics, Macroeconomics

PROJECTS

Portfolio: jad3ch3n.github.io

- Cook County Property Valuation: Predictive Modeling and Bias Detection
- Analyzed housing sales data to **predict** property values and evaluate bias in property **tax assessments**. Used **Python (pandas, scikit-learn)** for **regression modeling**, **residual analysis**, and **fairness metrics** to uncover regressive valuation patterns, where lower-priced homes were consistently overestimated.
- Smart Cities Mission: Policy Analysis and Pandemic Impact
- Evaluated India's Smart Cities Mission using **cross-sectional** and **difference-in-difference** methods to assess ICCC effectiveness on COVID-19 outcomes across 200 cities. Supplemented analysis with **cost-benefit** and **sensitivity testing** to inform crisis response strategies.

RESEARCH EXPERIENCE

- Research Apprentice – Undergraduate Research Apprentice Program
- September 2023 – May 2024
- Conducted **sentiment analysis** on 195,000+ conflict event records from ACLED and SATP using **Python (NLTK)**, investigating how mandated political reservations affect subnational conflict dynamics in India.
 - Manually labeled 200 events to create a **training set** for supervised **machine learning**, improving **classification accuracy** across conflict types. Preliminary findings suggest that political reservations may influence both the frequency and framing of reported conflict events, contributing to ongoing **policy relevance**.

PROFESSIONAL EXPERIENCE

- Development Data Coordinator – Berkeley Student Cooperative
- January 2024 – May 2024
- Recovered missing constituent database and identified 364 unacknowledged donations using **Bloomerang** and **Excel** filters, sending out backdated acknowledgement letters from May 2023 to May 2024 after assuming the role.
 - Optimized **data management** practices during the transition from Salesforce to Bloomerang, learning the new software and streamlining the initial **database setup** through mass data imports.
- Administrative Committee Chair – Berkeley Student Cooperative
- August 2021 – May 2024
- Led 80+ weekly committee meetings to **uphold compliance** standards across a **nonprofit housing** organization serving 1,300+ students in 17 houses and 3 apartment buildings.
 - Resolved 154 cases over 6 semesters with a **100% resolution rate**, ensuring timely and policy-aligned outcomes.

ADDITIONAL INFORMATION

Programming Languages: Python, R, Java, SQL
Libraries & Frameworks: NLTK, SpaCy, TextBlob, PyTorch, SciPy, SciKit-learn, Pandas, TensorFlow
Software: Power BI, Excel, GitHub, Bloomerang
Skills: EDA, Data Cleaning, Feature Engineering, Regression Modeling, Predictive Modeling, A/B Testing, NLP
Languages: English (Fluent), Mandarin Chinese (Fluent), Spanish (Intermediate - CEFR Level: B2)