NICOLE GOLDEN

Personal Information

Nationality: US
Degree: Ph.D. in Economics
Expertise: Econometrics, ML

Email: qinqiy1@uci.edu
Page: www.GoldenEconomics.com
Sample Code: GitHub, My Sample Code

Education

University of California, Irvine
Ph.D. in Economics

2019 September – 2024 March

University of Iowa
B.A. in Economics and Mathematics
Phi Beta Kappa

2017 August – 2019 August

Research Experience

Deep Data Lab - UC, Irvine
Research Assistant for Dr. Matthew Harding

2021 March – 2022 June (40 Hours/Week)

- Conducted comprehensive literature review and proposed research ideas during both individual and team meetings.
- Generated data manuals and workbooks for the team; Performed efficient data cleaning (with parallel computation) independently utilizing 17 years of Nielsen store data (> 500GB).
- Conducted data analysis and visualizations independently for cost-benefit analysis; Evaluating the food voucher programs (focusing on fresh fruit and vegetable) in the US.
- Constructed bilateral and multilateral price indexes, as well as Herfindahl-Hirschman Indexes (HHI) at county, state, and metropolitan levels to analyze the impact of price heterogeneity on food voucher programs.
- Collaborated in writing and editing of publishable research papers; Generated weekly reports to communicate research progress effectively within the team.
- An overview of the project:

Topic: The Effect of Price Heterogeneity in the US on Food Voucher Programs
Data: Nielsen fresh fruit and vegetables store data
Keywords: Price index, inflation, price heterogeneity, retail, Nielsen, big data,
                     fresh fruit and vegetables, policy evaluation, food voucher programs.

UC, Irvine
Independent Researcher

2019 September – 2024 March (20 Hours/week)

Fourth-Year Paper

- An overview of the project:

Topic: Heterogeneous Treatment Effect of Payday Loan Extended Payment Plans
                     on Financial Health: A Double/Debiased Machine Learning Approach

Data: Clarity payday loan data

Keywords: Payday loans, small-dollar loans, household finance, alternative financial services, financial health, income volatility, extended payment plans, Clarity, big data, double machine learning, heterogeneous treatment effect.

Third-Year Paper
- An overview of the project:

Topic: The Effect of Payday Loan Extended Payment Plans on Financial Health: A Synthetic Difference-in-Differences Approach

Data: Clarity payday loan data

Keywords: Payday loans, household finance, financial health, synthetic difference-in-differences, average treatment effect, Clarity, big data.

Second-Year Paper
- An overview of the project:

Topic: Got Milk? An Empirical Study of Milk Consumption Patterns Based on Movers

Data: Nielsen milk data

Keywords: Consumer consumption patterns, retail, migration, food, big data, Nielsen, nutrition, difference-in-differences, dairy milk, plant-based milk.

Work Experience	**United Nations**	2023 June – 2023 September (40 Hours/Week)

Economic Affairs, intern

- Performed statistical analysis related work for the Least Developed Countries (LDCs) team, including data collection, data visualization, data analysis, text analysis, and generating economic reports.
- Co-organized and assisted high-level political meetings such as the UN General Assembly (UNGA 78), the LDCs National Focal Points (NFPs) Meeting 2023, and the SDG summit side events. The task may include preparing for meeting related materials, communicating with international delegates and live interpreters throughout the meeting, and generating meeting summary report and meeting questionnaire report.

EcoMetricx   2022 February – 2023 February (14 Hours/Week)

Data Analyst

- Supported chief economist on projects related to state energy usage in the US. Tasks may include but are not limited to:

  (i) Built causal models to analyze monthly energy usage. The data includes monthly electricity and gas usage in the US. The analysis intends to study the average treatment effects by comparing the control group (which is not exposed to any energy-saving programs) and the treated groups (which are exposed to multiple energy-saving programs).

(ii) Ran models and generated monthly reports.

(iii) Helped with other data analysis related work, such as analyzing customer satisfaction surveys.

- Translated data analysis code from Python or Stata to R and wrote pipelines in R.

Teaching Experience	
UC, Irvine	2019 September – 2024 March (20 Hours/Week)

Teaching Assistant

- Teach undergraduate level courses including Introduction to Microeconomics, Introduction to Macroeconomics, Probability and Statistics, and Econometrics I.

Italki	2013 October – 2019 June (10 Hours/Week)

Online Mandarin Teacher

- Taught 812 lessons to 123 students from 31 countries (located in five continents); earned an overall full-point review from all students.
- Wrote various creative teaching materials designed for different levels of students.
- Experienced language and cultural exchange with students from different countries.

Professional Skills

Economics Analysis Skills:

Software:

R: advanced.

GitHub, Git (Bash), Latex, Excel, Word, PowerPoint: proficient.

Python, Stata, SQL, Html5, CSS, D3.js (JavaScript): basic.

Data Analysis:

Machine learning, deep learning, econometrics, statistics, NLP, network analysis,

Big data, geospatial data, alternative data (web scrapping, text data, image data),

Data collection, data cleaning, data visualization, data analysis, reports,

parallel (efficient) computation, and pipelines.

Research experience and interests:

Retail, food, consumer consumption, household finance, education, price index,

AI, machine learning predictions, text analysis, network analysis, policy evaluation.

Language Skills:

Mandarin: native

English: fluent

French, Spanish: conversational