

# Harry Lu

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## SUMMARY

Data-driven Analyst with expertise in forecasting, regression, and financial modeling. Skilled in Excel, Python, and SQL to turn complex datasets into actionable insights that support budgeting, reporting, and strategic decisions. Passionate about using data to improve business operations and workforce outcomes. Eager to apply data skills in HR and people analytics to support talent strategy and organizational growth.

## RELEVANT EXPERIENCE

Research Assistant, American University, Washington, DC May 2024 - Present

- Built scalable data pipelines using Python and SQL for classification and policy experiments.
- Conducted validation experiments, including randomization and regression analyses, for LLM-based evaluation systems.
- Collaborated with academic and policy stakeholders to interpret data insights and support research goals.
- Assisted in writing statistical methods and interpreting results for academic publication and grant proposals.

Math & Stats Lab Tutor, American University, Washington, DC Sep. 2024 - Present

- Provided guidance on statistical topics—including power analysis, hypothesis testing, and regression modeling—for undergraduate and graduate-level coursework and research projects.

## EDUCATION AND HONORS

American University, Washington, DC - Master, Data Science May 2025

- Awarded “AI in Mathematical, Computer Sciences, and Natural Sciences” at American University’s 35th Annual Robyn Rafferty Mathias Student Research Conference
- Relevant Coursework: Statistics, Data Analytics, Machine Learning, Data Visualization, NLP, Financial Modeling

Feng Chia University, Taichung, Taiwan - Bachelor, Economics

- Honorable Mention, 2020 Project Poster Presentation Contest
- Relevant Coursework: Quantitative Economics, Data Mining, Quantitative Finance, International Trade

## PROJECTS

US Dollar Index Analysis: Obama vs. Trump

- Used Excel to plot time-series trends of the U.S. Dollar Index and gold prices, highlighting an ~8% surge in the USD Index during March 2020 despite rising demand for precious metals.
- Conducted regression analysis in Stata to evaluate the impact of macroeconomic factors (e.g., gold prices, oil prices, interest rates) on the USD Index under liquidity stress.
- Built correlation and regression models to compare dollar sensitivity during Obama and Trump presidencies.
- Attributed the dollar’s appreciation to a global liquidity trap, where panic-driven demand for USD caused a temporary shortage in international markets, and highlighted policy-driven shifts (e.g., QE, COVID stimulus) during a university research symposium presentation.

The Impact of Gold Price on Oil Price during the COVID-19 Outbreak

- Investigated the relationship between gold and oil prices during the COVID-19 crisis using time-series econometric analysis, identifying significant shifts in commodity price dynamics under pandemic-driven market uncertainty.
- Used Excel to visualize historical gold and oil price trends and highlight volatility periods. Modeled moving averages and forecast intervals to support price behavior predictions.
- Identified a 35% increase in gold-oil price divergence during peak COVID-19 volatility, highlighting implications for commodity risk hedging strategies.

Evaluating LLM Stability for Social Policy Text Classification

- Compared LLMs response stability using 10,000+ annotations from direct classification and pairwise comparisons.
- Improved sentiment classification accuracy by 15% using the Bradley-Terry ranking model.
- Designed and executed stability experiments with 10+ prompt variations, measuring response consistency and reproducibility across semantically equivalent queries.

## SKILLS

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| Financial Analysis   | : Budgeting, Forecasting, Financial Modeling   |
| Data Analysis        | : Regression Modeling, Experimental Design, Statistical Inference, Randomization, Hypothesis Testing |
| Tools & Libraries    | : pandas, NumPy, scikit-learn, PyTorch, Tableau, Excel, HuggingFace, GitHub, PowerPoint              |
| Research Methodology | : Data Cleaning, ETL Pipelines, Prompt Engineering, Literature Review, Policy Impact Analysis        |