Nicholas Feng Schaefer

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SUMMARY

Quantitative economist specializing in econometric modeling, machine learning, and data analysis to address complex problems in business, policy, and research. Experienced in applying advanced statistical techniques for causal inference and predictive modeling, with proficiency in Python, R, and SQL.

EDUCATION

California Polytechnic State University, San Luis Obispo **June 2024**
M.S. Quantitative Economics GPA: 4.0, With Distinction

- **Relevant Coursework:** Advanced Econometrics I & II, Microeconometrics, Machine Learning Econometrics, Probability Theory, Mathematical Statistics, Dynamic Stochastic Modeling

California State University, Monterey Bay **May 2023**
B.S. Business Administration, Concentration in Information Systems GPA: 3.86, Magna Cum Laude

PROJECTS

World Bank, Transport GP Global Unit **Technology: R, RMarkdown, LaTeX**
Graduate Consultant | Remote **January 2024 – June 2024**

Evaluated the impact of an income subsidy and electric vehicle loan program on boda boda riders' disposable income in Kenya, revealing a 17% to 42% decrease in disposable income for treated participants compared to the control group.

- Applied propensity score matching and quantile regressions to isolate the causal effect of the program, addressing challenges like selection bias, outliers, and self-reported inaccuracies to improve the robustness of the results.
- Contributed findings that led the World Bank to expand the project into a randomized controlled trial (RCT) to further assess the program's impact on a broader scale.
- Delivered comprehensive outputs, including a research paper, detailed readme documentation, and a recorded presentation, which were well-received by World Bank correspondents and influenced further funding decisions.

Major League Baseball (MLB) **Technology: R (tidymodels, Quarto)**
All-Star Prediction **August 2023 – December 2023**

Developed a predictive model for MLB All-Star Team selection, using Kaggle datasets and players' previous season performance, leveraging statistical learning techniques to improve prediction accuracy.

- Improved model performance by addressing data imbalance and applying machine learning algorithms such as K-Nearest Neighbors, Random Forests, and Support Vector Machines, resulting in a 96% precision rate and an 81% recall rate.
- Optimized feature selection and model tuning, significantly enhancing the model's ability to predict All-Star selections.

WORK EXPERIENCE

California Polytechnic State University, San Luis Obispo **San Luis Obispo, CA**
Research Assistant to Professor Kathryn Vasilaky **November 2023 – January 2024**

- Applied double machine learning models using Python and the DoubleML package to analyze the impact of media coverage on personal donations in a confidential dataset.
- Conducted an extensive literature review, synthesizing key findings and addressing the professor's specific inquiries to support ongoing research efforts.
- Played a crucial role in proofreading and editing a 25-page academic paper, ensuring clarity, coherence, and adherence to academic standards, which contributed to the paper's submission readiness.

SKILLS & CERTIFICATES

Programming Languages: Python, R, SQL, VBA, SAS, Git, Bash
Software: MS Excel, Tableau, SAP S/4 HANA
Modeling & Analysis: Statistical Modeling, Econometrics, Predictive Analytics, Causal Inference, Data Transformation
Languages: German (Native), Mandarin (Native), French (Intermediate), Spanish (Beginner)
Certificates: Tableau Desktop Specialist, Google Advanced Data Analytics Professional