Ray Wang

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Objective

Adaptable and team-oriented empirical microeconomist with four years of experience in discrete choice modeling and demand estimation. Seeking data scientist role to leverage communication experience, and continue developing skills in machine learning and data science.

Experience

Center for Naval Analyses (CNA) | Arlington, VA
Research Scientist / Economist | Nov 2023 – Present
Research Analyst / Economist | Jun 2020 – Oct 2022

- Modeled re-enlistment decisions using 7 million+ servicemember-year observations, via conditional choice probability (CCP) estimation in R
- Simulated policy impacts, visualized results, and presented recommendations to non-economists and military leadership
- Within one year, learned legacy codebase, extended Navy-specific codebase to work with Marine Corps data, improved model fit, and successfully on-boarded incoming staff

CNA Field Representative to Carrier Strike Group (CSG) 12
Oct 2022 – Nov 2023

- Directly supported Commander, CSG-12 with analysis on variety of topics. Embarked on-board USS *Gerald R. Ford* for Oct - Nov 2022 and May - Nov 2023 deployments
- Topics included assessing electronic warfare tactics, optimizing carrier flight operations, and characterizing reliability of first-in-class aircraft carrier systems
- Worked independently, with tasks including interviews with junior and senior sailors, data collection, analysis, and presentation of results and recommendations to leadership

DC Energy | Vienna, VA
Analyst | Sep 2012 – Oct 2013

- Analyzed electricity and steel/iron ore markets using R, leading to profitable trades with ~20% return on capital over 6 months
- Developed dashboards with PHP and R Shiny to visualize prices in support of daily trading

Education

PhD in Economics
University of North Carolina at Chapel Hill | 2014 - 2020
- Subfields: Applied microeconomics, labor economics
- Dissertation involved data visualization in R, data cleaning and program execution time optimization in Python

BS Eng. in Operations Research and Financial Engineering
Princeton University | 2008 - 2012

Technical Skills

- R, ggplot, data.table, Shiny
- Python, pandas, scipy, numba
- Discrete choice, demand estimation
- Causal inference
- Machine learning, nonparametric statistics

Other

- Top Secret security clearance (Nov 2022 – Present)
- Secret security clearance (Jan 2021 – Nov 2022)
- Fluent in English and Chinese