

Ray Wang

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Experience

Center for Naval Analyses (CNA) | Arlington, VA

Research Scientist / Economist | Nov 2023 – Present

Research Analyst / Economist | Jun 2020 – Oct 2022

- Modeled sailor re-enlistment decisions using 7 million+ panel observations, via conditional choice probability (CCP) estimation in R. Simulated policy impacts, visualized results, and presented recommendations to military leadership, affecting implementation of Navy's DMAP Phase I
- 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 first-in-class carrier flight operations
- Worked independently in a fast turnaround environment. Tasks included conducting interviews with junior and senior sailors, collecting and analyzing data, and presenting results to leadership

DC Energy | Vienna, VA

Analyst | Sep 2012 – Oct 2013

- Analyzed electricity and steel/iron ore markets using R, leading to trades with 20% returns over 6 mos.
- 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

- 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
- Python, pandas, scikit-learn, numba
- Discrete choice modeling, demand estimation, causal inference, machine learning

Other

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