**PROFESSIONAL EXPERIENCE**

**Ernst and Young** August ’22 – Present

Quantitative Advisory Services (Trading Book) – Staff New York, NY

* Achieved EYs Gold Badge in Artificial Intelligence and Machine Learning (AI/ML)
* Supported AI/ML internal initiatives for project acquisition (e.g., making PowerPoint Proposals/material)
* Developed and enhanced models for Wrong Way Risk detection
* Created product procedures on risk measurements (e.g., PFE, Stress Testing, WWR) for Citibank N.A.

**PROJECTS Languages: Python, RStudio**

**Housing Price Prediction Model** – (Python, Sklearn, Statsmodels, BartPy):

* Utilized new Bayesian Gradient Boosting techniques to predict California housing prices
* Lowered RMSE by 30% when compared to ordinary least squares

**Home Loan Mortgage Data Visualization** – (RStudio, ggplot2):

* Cleaned +1 million data points for missing values, outliers, and incorrect entries
* Prepared summary statistics and data visuals

**Equity Frontier** – (Python, NumPy, Pandas, SciPy):

* Created an algorithm to model the optimal stock portfolio at a given variance

**Stochastic Portfolio Value Simulation** – (Python, NumPy, Pandas, SciPy):

* Simulated 10,000 stochastic stock portfolio value paths, utilizing a Cholesky decomposition of the covariance matrix, to predict long-term value

**Foreign Exchange Model Comparison**– (RStudio, VAR, Stats):

* Predicted USD/Peso value using ARIMA, OLS Regression, Vector Error Correction models

**EDUCATION**

**M.A. International Economic Policy (*3.62 GPA*)** May 2022

George Washington University Washington, DC

**Relevant Courses:**

|  |  |
| --- | --- |
| ECON 6376: Time-Series Analysis | ECON 6374: Probability and Statistics |
| ECON 6300: Math Methods for Econ | MATH 2233: Multivariable Calculus |
| ECON 6375: Applied Econometrics | MATH 2184: Linear Algebra |
| ECON 6376: Time-Series Analysis | ECON 6374: Probability and Statistics | |

**B.A. Economics and German (*3.56 GPA)*** May 2020

Guilford College                           Greensboro, NC

* Studied German in Munich, Germany while living with a 98-year-old WWII Veteran