

Rory Quinlan

[Projects - Rory Quinlan's Resume \(roryqo.github.io\)](#)

<https://github.com/Roryqo>

www.linkedin.com/in/rory-quinlan

412-287-9848

RoryQo@gmail.com

EDUCATION

University of Pittsburgh, Pittsburgh, PA
Master of Science in Quantitative Economics
GPA: 3.875 (ongoing)

Expected: May 2025

University of Pittsburgh, Pittsburgh PA
Bachelor of Science in Statistics & Economics
M GPA: 3.25 | Dean's list 3 consecutive years

May 2024

EXPERIENCE

University of Pittsburgh, Pittsburgh, PA

August 2022 - Present

Peer Financial Educator, Head of Data Analysis Team

- Analyzed survey data from workshops and programs and suggested adjustments to increase student satisfaction by 27%
- Led over 50 group sessions and workshops to educate students on a selected financial topic, both virtually and in person
- Created and implemented new training initiatives such as online modules and interactive software, boosting student financial literacy scores by 17%
- Engaged in 20+ one-on-one coaching sessions with students to discuss a financial topic of choice
- Suggested program alterations reducing financial waste by 12% from monthly Rmarkdown reports

University of Pittsburgh, Pittsburgh, PA

August 2023 - May 2024

Undergraduate Research Assistant

- Performed advanced statistical, qualitative, and quantitative analysis on post surveys.
- Assisted on grant writing and annual NSF report
- Created dashboards to visualize data related to mobilization trends and economic factors

PROJECTS

Tuition Variation Model, Undergraduate Research Capstone

- Model market value for a college given key predictors, and determine if a college is over or underpriced compared to market value, allowing maximization of return on investment
- Applied linear regression analysis (model creation, selection, and validation) in R to achieve an adjusted coefficient of determination value of 87% for tuition variation in the education market
- Employed leave-one-out cross-validation (LOOCV) to validate model performance, maintaining an R-squared value of 0.85, demonstrating robustness and minimal overfitting

Age Correlation in Married Couples, Bayesian Analysis Challenge

- Using age data from 100 sampled U.S. married couples, hypothesize a semi conjugate prior, generate a predictive data set to confirm the hypothesis, and use Markov Chain Monte Carlo (MCMC) approximation for mean ages and correlation coefficient
- Reduce age confidence interval by one year compared to traditional frequentist approach
- Reduce correlation coefficient confidence interval by 2% compared to traditional frequentist approach

Country Needs Assessment for Humanitarian Aid, Data Science Foundations Challenge

- Utilized Principal Component Analysis (PCA) to reduce dimensionality
- Categorize countries using Partitioning and K-mean clustering with socio-economic and health factors that determine the overall development of the country
- Compiled a list of countries in Cluster 1, providing actionable insights to strategically focus resources on the most underserved populations.

Causal Effect of Health Risk on Housing Values, Research Replication

- Cleaned and analyzed real estate transaction data (1995-2005) using Difference-in-Differences (DID) methods
- Found a 7.6% decrease in housing prices post-cancer cluster in the affected county
- Adjusted home prices for inflation using the Nevada Home Price Index (nvhpi) for accurate real price trends

SKILLS

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|-----------------------|----------------------------|-------------------------|
| • R (coding language) | • Python (coding language) | • SQL (coding language) |
| • Bayesian Analysis | • Excel | • Regression analysis |

CERTIFICATIONS

- Google Advanced Data Analytics (GADA), Google & Coursera - September 2024
- Certified Financial Education Instructor (CFEI), National Financial Educators Council - June 2024