Rory G Quinlan

Projects - Rory Quinlan's Resume (roryqo.github.io)
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EDUCATION

University of Pittsburgh, Pittsburgh, PA — Expected: May 2025
Master of Science in Quantitative Economics
GPA: 3.875 (ongoing)

University of Pittsburgh, Pittsburgh PA — May 2024
Bachelor of Science in Statistics & Economics
M GPA: 3.25 | Dean's list 3 consecutive years

EXPERIENCE

Blue Street Data, Pittsburgh, PA — October 2024 - May 2025
Data Science Consultantship

- Developed an LLM to identify and target potential data buyers
- Collaborated with cross-functional teams to design and streamline a buyer's guide for data procurement
- Implemented Python-based web scraping frameworks using Selenium

University of Pittsburgh, Pittsburgh, PA — August 2022 - December 2024
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 dashboards to visualize data related to student engagement and literacy scores
- Engaged in 20+ one-on-one coaching sessions with students to discuss a financial topic of choice
- Created an attendance model to reduce financial waste by 12% from monthly Rmarkdown reports

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 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

- R (coding language)
- Python (coding language)
- SQL (coding language)
- Bayesian Analysis
- Causal estimation
- Regression analysis

CERTIFICATIONS

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