

# Ryker Dolese

Houston, TX 77005 | 504.330.1293 | [rjd5@rice.edu](mailto:rjd5@rice.edu) | <https://rykerdolese.github.io/> | [www.linkedin.com/in/ryker-dolese](https://www.linkedin.com/in/ryker-dolese)

## EDUCATION

Rice University, Houston, TX

Master of Statistics | GPA: 4.00

Jan '25 – May '26

Bachelor of Arts in Statistics | Minors in Data Science, Financial Computation | GPA: 3.99

Aug '22 – May '25

Coursework & Interests: Deep Learning | Time Series Analysis | Bayesian Inference | Quantitative Financial Analytics

## WORK EXPERIENCE

Capital One | *Data Analyst Intern - Compliance & Ethics Innovation* | McLean, VA

Jun '25 – Aug '25

- Developed two 90%+ accuracy models to automate impact and rating prediction of compliance problems by leveraging transformer embeddings for text and gradient-boosted trees for final classification, improving consistency of assessments
- Models reduced compliance advisors' manual review time by 80%, saving approximately 720K minutes annually
- Engineered a semi-supervised regulatory mapping (RMAP) suggestion tool using cosine similarity to match new issues with historical problems, reducing the RMAP search space by 98% and enabling advisors to find relevant mappings in seconds

Capital One | *Business Analyst Intern - First Party Fraud* | McLean, VA

Jun '24 – Aug '24

- Examined billions of transactions in Snowflake SQL to discern key spending tendencies that lead to legitimate credit card payments as part of a team of three interns; aggregated data to create 150+ new features to better identify such cases
- Tuned decision trees in Python, showing that diverse spending patterns, low transaction risk, and low post-payment spending quantity and velocity are indicators of future good payments
- Built a logistic regression model to post-process payment risk scores with projected potential reduction of 150K open-to-buy holds, saving Capital One \$2.4 million annually in attrition, recovered fraud losses, and operating costs

Fidelity Bank | *Business Intelligence Intern* | New Orleans, LA

May '23 – Nov '23

- Spearheaded the development of an executive dashboard in Power BI, using data visualization to present a comprehensive overview of loans, direct deposits, CDs, fees, and mortgages—accounting for over \$1 billion dollars in assets
- Directed top-level decisions to reallocate employees and provide targeted training, leveraging dynamic ad-hoc reports on customer interactions and teller transactions, resulting in a 10-30% increase in customer satisfaction scores across branches
- Presented key finding to top-level executives, receiving special recognition from the CEO and COO for actionable insights

## SELECTED PROJECTS

Blood, Sweat, & Sugar: Metabolic Management Forecasting

Jan '25 – May '25

- Designed an ensemble (XGBoost + LSTM) model for personalized glucose forecasting using CGM, meal, and exercise data
- Leveraged Kalman smoothing and Bayesian optimization to effectively tune the model, achieving state-of-the-art accuracy

Quantfin Backtesting & Portfolio Application

Oct '24 – Dec '24

- Built a user-friendly app to backtest RNN and Reinforcement Learning trading strategies, partnering with a team of 4 others
- Designed a portfolio optimization tool using efficient frontier theory to identify optimal asset allocations

Ozone Time Series Forecasting

Apr '24 – May '24

- Assessed Houston's daily ozone levels using ARIMA, effectively capturing three-day autocorrelation with an AR(3) model
- Inspected the importance of seasonal adjustments for improved health risk predictions and long-term forecast accuracy

## LEADERSHIP

Rice Interdisciplinary Research Support Office | *Web Development Intern* | Houston, TX

Jan '25 – Present

- Developed and maintained multiple Rice University research websites using Drupal and HTML

Department of Statistics at Rice University | *Teaching Assistant* | Houston, TX

Jan '25 – Present

- Evaluated coursework and provided feedback on trading concepts and derivatives in Computational Finance; assisted in teaching generalized linear models, regularization methods, and principles of study design in Advanced Statistical Methods

Rice PAWS | *Treasurer* | Houston, TX

Aug '23 – Dec '24

- Managed budget of \$2K for Rice's Program for Accessible Working Service Dogs, connecting students with furry friends

Center for Computational Finance and Economic Systems | *CME University Challenge Lead* | Houston, TX

Oct '23 – Dec '24

- Led a team of five students to trade futures and options, growing a \$500K simulated portfolio using CQG software and placing first among Rice teams in a nationwide competition

## HONORS

- Louise J. Walsh Award:** Chosen as one of a dozen 3rd-year engineering students of 1,500 based on academic excellence
- Summa Cum Laude:** Placed in top 5% of graduating class for academic achievement

## SKILLS

R | Python | SQL | Power BI | Tableau | MATLAB | Git | MS Excel | Google Sheets | MS Office