# Ryker Dolese

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## **EDUCATION**

MASTER OF STATISTICS | Rice University, Houston, TX | GPA: 4.00

Expected May '26

B.A. STATISTICS | Rice University, Houston, TX | GPA: 3.979, MAJOR: 4.00

Expected May '25

# MINORS IN DATA SCIENCE, FINANCIAL COMPUTATION AND MODELING

- LOUISE J. WALSH AWARD: Chosen as one of a dozen 3rd-year engineering students of 1,500 based on academic excellence
- PRESIDENT'S HONOR ROLL: Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024

**RELEVANT COURSEWORK:** Multivariable Calculus | Matrix Analysis | Linear Regression | Advanced Probability | Bayesian Inference | Machine Learning | Quantitative Financial Analytics | Time Series | R for Data Science | Advanced Statistical Methods

## WORK EXPERIENCE

## PRODUCT MANAGEMENT AND ANALYTICS INTERN - FIRST PARTY FRAUD

Capital One | 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

## **BUSINESS ANALYST INTERN**

Fidelity Bank | 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; solely responsible for delivering these finding to top-level executives, receiving special recognition from the CEO and COO
- Drove 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

## **DATA ANALYTICS INTERN**

Rice University Baseball | Houston, TX | Nov '22 – Sep '23

- Captured high-quality video and meticulously tracked pitch data during bullpens, practices, scrimmages, and games with Trackman and BATS software, contributing to an increase in win percentage by over 20% compared to previous season
- Efficiently edited, sorted, and disseminated video footage to 40+ players and coaches, working closely with 5 other interns
- Composed comprehensive scouting reports on upcoming opponents, leveraging video footage and statistics

# **SELECTED PROJECTS**

## **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**

April '24 – May '24

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

## **GOLDEN INSIGHTS: AN ANALYTICAL PERSPECTIVE OF THE OLYMPICS**

April '24 - May '24

- Trained an XGBoost model to predict country performance at the 2024 Paris Olympics, identifying historical over-performers
- Presented findings on an interactive website with animated visuals for enhanced data engagement

## LEADERSHIP & OUTREACH

- STATISTICS TEACHING & LAB ASSISTANT (2024): Taught foundational concepts of probability theory, hypothesis testing, and data analysis in R through hands-on learning for STAT 305 and STAT 410, while ensuring fair grading of student assignments
- TREASURER OF RICE PAWS (2023, 2024): Manage budget of \$2K for Rice's Program for Accessible Working Service Dogs, connecting students with furry friends
- **ORIENTATION WEEK ADVISOR (2023, 2024):** Selected twice to support and mentor new students during their transition to Rice University, guiding them through orientation week and beyond with weekly meals and events
- CME UNIVERSITY TRADING CHALLENGE LEAD (2024): 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
- **DUNCAN COLLEGE CLASS REPRESENTATIVE (2023):** Collaborated with my Residential College's Executive Committee, pioneering several student events, including a freshman-senior picnic, a sophomore sleepover, and a college game night

## **SKILLS**