Lucca Ferraz

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EDUCATION

Rice University *Houston, Texas*
Bachelor of Arts in Statistics and Sport Analytics Expected Graduation: June 2026
Minors in Data Science and Financial Computation and Modeling **GPA: 3.8 / 4.0**
Clubs and Activities: Club Basketball Captain, Sports Data Modeling Club President, Chess Club, Rice Finance Training Program, Rice Sports Analytics Team
Skills: Python, R, SQL, Stan, Shiny, Excel, Power BI
Languages: Portuguese, Spanish

Charles III University of Madrid *Madrid, Spain*
Study Abroad August – December 2024

PROFESSIONAL EXPERIENCE

Tampa Bay Rays *Saint Petersburg, Florida*
Research and Development Intern January 2025 - Present
- Developed R Shiny app to automatically identify concerning amateur pitchers, saving 100+ hours of individual player tagging
- Created XGBoost model to evaluate and predict baserunning reads on every batted ball since 2015 (over 150,000 plays)
- Utilized RMarkdown to create automated park corrections report allowing for better draft prospect evaluations

Carnegie Mellon University Department of Statistics and Data Science *Pittsburgh, Pennsylvania*
Undergraduate Researcher June - July 2024
- Selected for 8-week summer research experience for undergraduate students focusing on applications of statistics and data science in sports
- Developed skills in statistical and data science methodology, data engineering, and communicating results
- Created final research paper, presentation, and poster presented at 2024 Carnegie Mellon Sports Analytics Conference
- Capstone Project: "*Examining batted passes in the NFL: A hierarchical approach to explaining variance of an unlikely event*" (Advisor: Dr. Ron Yurko)

Montgomery Sports Group *Fully Remote*
Basketball Analytics Intern June – August 2023
- Created over 15 detailed video and written scouting reports on both current and potential clients used in meetings with players
- Evaluated prospects with Synergy Sports data and film to project NBA success and earning potential
- Added over 50 new potential prospects to database with detailed scouting reports and player backgrounds for each prospect
- Mapped NBA free agency moves to determine ideal locations and opportunities for clients
- Created an in-depth pitch deck for a potential NBA client that was used in meeting with client

Rice Football *Houston, Texas*
Student Head of Football Analytics August 2022 - Present
- Developing analytics-based scouting reports for coaches as well as statistical models for projecting transfer portal targets
- Built machine learning model to predict every FBS players likelihood of entering transfer portal and/or transferring to Rice
- Designed web application using R Shiny to further automate the opponent scouting process
- Assisted in scouting every Texas Class of 2024 high school prospect
- Led prospects and potential recruits on tours, official and unofficial visits

PROJECTS

TEndencIQ: A Continuous Evaluation of Tight End Blocking Probabilities September 2024 - January 2025
2025 NFL Big Data Bowl
- Utilized Recurrent Neural Networks to produce frame-by-frame estimates for tight end block rates
- Classified different pre-snap motion types using a Gaussian Mixture Model
- Named as one of five finalists from a pool of over 400 submissions

Batted Passes in the NFL: A Hierarchical Approach to Explaining Variance of an Unlikely Event June – July 2024
Carnegie Mellon Sports Analytics Camp Capstone Project
- Utilized a mixed effects logistic regression model to explain what causes batted passes in the NFL
- Created rankings of quarterbacks best and worst at avoiding batted passes through random effect coefficient estimates
- Presented work at 2024 Carnegie Mellon Sports Analytics Conference

Optimizing Batting Order Across Minor League Baseball May – August 2024
2024 SMT Data Challenge
- Created novel game simulation approach for estimating expected runs for a given batting lineup and order
- Incorporated various aspects of baseball including baserunner speed, pitcher fatigue, directional tendencies, and more
- Developed R Shiny app allowing decision makers to input a given lineup and output the estimated runs scored