ERIC CHOI

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EDUCATION

University of Pennsylvania **Philadelphia, PA**
***MSE** in* Data Science (GPA: 3.80 / 4.00)
BA in Economics, Minor in Math, Statistics and Data Science (GPA: 3.80 / 4.00) Graduation Date: May 2025

PROFESSIONAL EXPERIENCE

Miura Global Management | Data Analytics Intern New York City, NY | June 2024 -

- Implemented the first-ever statistical forecasting model for Royal Football Club Liège by analyzing 1M+ data points from prior seasons; model is currently aiding coaches in optimizing player performance and match preparations.
- Devised an innovative approach to talent identification by creating algorithms that processed 500+ player metrics; this foundational tool is now utilized by scouting teams to refine recruitment strategies and decision-making.
- Developed sophisticated player profile reports utilizing advanced data visualization techniques, including multi-dimensional graphs.

Analytics at Wharton | Summer Research Associate Philadelphia, PA | May 2023 - August 2023

- Led a team of five in developing an advanced Expected Goals (xG) model for the Philadelphia Union, introducing a custom variable that segmented the attacking half of the field into arcs instead of linear zones, resulting in more accurate performance predictions.
- Orchestrated the processing and analysis of a substantial 2 TB dataset of JSON tracking and event data, utilizing Wharton's High-Performance Computing Cluster (HPC3) to leverage parallel processing, optimize computational efficiency, and enhance data integration workflows.

University of Pennsylvania Center for Neuroscience & Society | Research Intern May 2022 - September 2022

- Analyzed significant associations among structural brain data, depression status, and socioeconomic status from a comprehensive biomedical database comprising 500,000 UK residents aged 45-91.
- Developed predictive models to forecast depression risk based on neuroimaging patterns, optimizing model performance to achieve an accuracy rate of 85%

Statistics Teaching Assistant August 2023 -

- Led weekly recitation and office hours for undergraduate, graduate, and MBA students and responsible for grading homework, tests, and quizzes
- Data Analytics and Statistical Computing (Spring/Fall 2024), Probability (Fall 2023), Regression Analysis for Business (Fall 2023)

SKILLS

Programming Languages: Python, R, SQL, Java, JSON | **Database and Processing Tools:** Snowflake, Spark, Hadoop

Technical Skills: Machine Learning, Statistical Analysis, Relational Databases, ETL Processes, Data Mining

Relevant Coursework: Applied Machine Learning, Databases for Analytics, Artificial Intelligence, Modern Data Mining, Data Analytics and Statistical Computing, Econometric Methods and Models

PROJECTS

AI/ML Soccer Analysis System (Python) August 2024

- Developed an AI-driven football analysis system utilizing YOLO (real-time object detection software), OpenCV, and Python to automate player, referee, and ball detection and tracking in football match videos.

Predictive Modeling for NYC Uber Tips (SQL, Apache Spark, Python) May 2024

- Engineered and deployed a predictive model utilizing Apache Spark and advanced machine learning algorithms on an 18 million-record dataset of NYC Uber trips to determine the best predictors of riders' tip percentage.

March Madness Game Outcome Predictor (R) December 2023

- Built machine learning classifiers (logistic regression, decision trees, random forest) for March Madness games using historical data, achieving 82.4% accuracy with Random Forest.