

# YoungKeun Yang | Data Insights Specialist

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## Education

**University of South Florida** | Tampa, FL  
M.A. Statistics | GPA 3.63 / 4.0

(Expected) Aug 2023

**Soongsil University** | Seoul, Korea  
B.A. Business Administration

Aug 2017

## Technical Skills

**Programming** | Python (NumPy, Pandas, Sklearn), R, Relational databases: SQL programming, Visualization tool: Tableau  
**Coursework** | Statistics Methods, Design of Experiments, Linear Statistical Models, Multivariate Analysis, MIS, Mathematical Statistics, Probability Theory, Machine Learning, Computer Science: Data Structure and Algorithms

## Data Science Project

### Machine Learning Classification: Predict Hotel Cancellation

- Achieved a top-performing binary classification model with an accuracy of 91%, recall of 88%, and precision of 88% (performance metrics) by modeling and comparing popular classification algorithms such as XGboost, and Neural Network
- Transformed and improved the data quality of large data sets of 119,390 observations and 32 features into a readily usable format for algorithm implementation by data management
- Unearthed valuable business insights by successful data mining a model that identified the significance of two key variables: lead time and the number of special requests

### Machine Learning Clustering: Customer Segmentation

- Implemented feature engineering techniques to create 15 new variables, enriching and unveiling valuable insights for data
- Remodeled the data of 541,909 customers by cohort analysis, RFM analysis, K-means, and Hierarchical clustering
- Leveraged data analysis to discern spending patterns and successfully restructured customers into 3-4 distinct groups, providing valuable business insights for strategic decision-making

### Machine Learning Regression: Forecasting Rideshare Price

- Maximized the performance of models with a dataset of 693,071 observations and 57 features by evaluating several well-known machine learning algorithms, including Linear regression, Random Forest, KNN, Neural Network, SVM, etc.
- Optimized the model performance resulting in Root Mean Squared Error (RSME) of 2.26, indicating high accuracy through hyperparameter tuning
- Identified the key factor for deciding the rideshare price by surveying the relationship between the variables in the data

### Thesis: Bayesian Estimation of Autocovariance of a Model Error in Time Series (ongoing)

- Investigated the Markov Chain Monte Carlo method for the posterior distribution of Bayesian estimation by reading journals with technical instructions and technical documentation: Establish facts that could perform continuous improvement
- Developed a new statistical analysis of the Time Series method with a variant version of GARCH to build a solid model with reliability that performs well on forecast financial Time Series data such as Stock price or Currency exchange rate

## Work Experience

**USF Academic Success Center** | Tampa, FL  
Statistics & Mathematics Tutor

Sep 2022 – May 2023

- Learned the ability to train others by tutoring 100s of students, and every student provides feedback of satisfaction
- Earned director's referral to the Athletes department and boosted Athletes' grades by 20%: conduct presentations for them

**FILA Korea** | Seoul, Korea  
Sports Marketing Team Staff

Mar 2018 – Sep 2019

- Increased daily revenue by 300% by designing and implementing marketing campaigns based on customer service data analysis and understanding business processes in collaboration with the sales department to collect data from previous events
- Exceeded KPI of the brand exposure in the media by 20% by analyzing data and planning a new method for publicizing
- navigated unforeseen manufacturing errors and fast-paced situations in sports events and learned how to work independently

**Brion Company** | Seoul, Korea  
Sports Marketing Team Internship

Jan 2017 – Jul 2017

- Won bid for Adidas' marketing operation project management with a budget of \$50k by delivering a presentation based on the analysis of the client's user manuals and financial reports
- Achieved 100% accurate forecasts for non-rainy weather conditions for outdoor marketing events by utilizing data
- Produced and delivered weekly analytics reports to clients' leadership utilizing data visualization to communicate effectively