Hyoin An

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EDUCATION

Ph.D. in Statistics, The Ohio State University 2024 [anticipated]
M.S. in Statistics, Ewha Womans University, South Korea 2019
B.A. in Economics & B.S. in Statistics, Ewha Womans University, South Korea 2017

EXPERIENCE

Wells Fargo, Charlotte, NC Jun. 2023 - Aug. 2023
Quantitative Analytics Intern
- Found and resolved issues of a Markov transition model and developed efficient code in Python, by employing probability theory and thoroughly reviewing engine code
- Validated a forecasting model by replicating it, conducting backtesting, comparing the results, and reviewing the model documentation

United Airlines, Chicago, IL Jun. 2022 - Aug. 2022
Intern
- Developed a prototype model for the subscription value and the unsubscription cost of marketing emails applying propensity score matching framework
- Handled and transformed big data with 13 million rows and applied machine learning methods such as LightGBM and Random Forest for feature selection in Python

SELECTED PROJECTS

1-year Survival Prediction Analysis May 2021 - Aug. 2021
Graduate Research Associate
- Predicted 1 year survival of Pulmonary Arterial Hypertension patients using genetic pathways using survival deep neural network models in R and Python

Consumer Behavior Prediction using Airbnb Web Log data Mar. 2018 - Aug. 2018
Final project in Graduate Data Mining course
- Predicted binary decision-making time of Airbnb customers until the first reservation and published the results by creating derived variables and using various machine learning methods such as Random Forest, Gradient Boosting, and XGBoost in R

L Point Big Data Competition, Lotte Members Feb. 2018
Grand Prize (Second place)
- Constructed a recommender system in R which suggests items based on demographic information, purchase log, and seasonal/weather effect

SELECTED PUBLICATION

An, H., & MacEachern, S. N. (2023). A Process of Dependent Quantile Pyramids. Submitted. [link]

Lee, H. A. & **An, H.** (2020) The Effect of High Carbohydrate-to-fat Intake Ratios on Hypo-HDL-cholesterolemia Risk and HDL-cholesterol Levels over a 12-year Follow-up, *Scientific Reports*, 10, 913. [link]

Lee, H. A., **An, H.**, & Park, H. (2019) Identification of Dietary Patterns Related to Metabolic Diseases and Their Association with Cardiovascular Disease: From the Korean Genome and Epidemiology Study, *Nutrients*, Volume 11, Issue 10, 2434. [link]

An, H., Choi, Y., Oh, R. E., & Song, J. W. (2019) Consumer Behavior Prediction using Airbnb Web Log data, *The Korean Journal of Applied Statistics*, Volume 32, Issue 3, Pages 391-404. [link]

An, H., Won, S., & Yoo., J. K. (2017). Fused Sliced Average Variance Estimation, *Journal of the Korean Statistical Society*, Volume 46, Issue 4, Pages 623-628. [link]