Andrew Elzayn

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EDUCATION

Princeton University
Master in Finance
- Anticipated coursework: Asset Pricing I, Statistical Analysis of Financial Data, Corporate Finance and Financial Accounting, Asset Pricing II, and Financial Econometrics

Princeton, NJ
Expected
Aug. 2021 – May 2023

Columbia University
B.A. in Computer Science – Mathematics, Concentration in Economics, GPA: 4.13/4.00
- Summa cum Laude, Junior Phi Beta Kappa, Computer Science Scholarship Award, Dean's List
- Relevant coursework: Advanced Econometrics, Analysis of Algorithms I, Introduction to Probability and Statistics, Analysis and Optimization, Economics of Uncertainty and Information, Artificial Intelligence, Intermediate Microeconomics, Intermediate Macroeconomics, Modern Algebra I

New York, NY
Sept. 2017 – Feb. 2021

RESEARCH & WORK EXPERIENCE

Columbia University
Research Assistant, Economics Department
- Wrote code in R to forecast industrial production and other macroeconomic variables during recessions using various machine learning and classical forecasting models
- Compared random forest, factor-augmented regression, and LASSO models to baseline AR(4)
- Developed tools to visualize inter-model differences for improved interpretability

New York, NY
Feb. 2021 – July 2021

Aetna
Data Science Intern
- Spearheaded the push for personalized content by creating a repository of user segments
- Worked with the product team to identify four different personalization features
- Utilized unsupervised clustering algorithms such as K-Means and Agglomerative Clustering
- Worked with the data engineering team to productionize models for use across the entire team
- Used supervised learning models to expand functionality of clusters and eliminate the need to re-fit with models that lack ability to predict (supervised learning models achieved F1 scores > 0.98)
- Optimized model pipeline using a distributed parallel processing engine for machine learning to reduce runtime from minutes to seconds

New York, NY
June 2020 – Aug. 2020

Jam City
Data Science Intern
- Developed random forest and XGBoost models using player data in order to predict whether a player will make a purchase from the in-game store
- Used segmentation techniques to segment players for more directed advertising and in-game offers
- Developed and modified reinforcement learning models in order to find optimal level difficulties

Los Angeles, CA
June 2019 – Aug. 2019

Avata Intelligence
Software Engineering Intern
- Created programs using the Apache POI API to read documents and spreadsheets and input the data into JSON format to be used by the company's proprietary NLP algorithms
- Created a MySQL database and local server to process, store, and analyze the data
- Utilized Python, Amazon Web Services, and AWS Lambda Functions to create a chat bot framework with Slack integration for the company's future use

Los Angeles, CA
June 2018 – July 2018

LEADERSHIP & SERVICE

Columbia University, Turath – Arab Students Association
Treasurer (2018-2019, 2019-2020) and Organizing Committee Member (2017-2018)

New York, NY
Sept. 2017 – May 2020

SKILLS

Programming – R, Python, SQL, Java, C
- Extensive experience programming in R, Python, SQL, and Java
- Experience with C, C++, Apache Hive, and MySQL