

ANDREW G. ARGEROS

Dedicated and driven data scientist with a passion for statistical, analytical, and machine learning approaches to modern issues. Enjoys problem solving through data driven thinking and computational methods.

Skilled in applications of **R**, **SQL**, and **Python** for end-to-end data science. Work has included advanced use **NLP**, **Computer Vision**, and **tabular methods**. Avid presenter at national data science competitions and academic conferences. Looking to further experience in the corporate sector through leveraging skills in machine learning at scale and applied analytics.



EDUCATION

2022
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2018

B.S. Computational Data Science; B.B.A. Business Analytics; Minor in Economics

Hamline University

📍 St. Paul, MN

- Advisors: Dr. Stacie Bosley and Dr. Andy Rundquist
- President's Scholarship Recipient, Heim Scholar, and 2022 MinneAnalytics Scholar
- NCAA Varsity Athlete: Men's Tennis

2018
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2014

High School Diploma

Coon Rapids High School

📍 Coon Rapids, MN

- Graduated with Honors
- Two time National AP Scholar with Distinction



RESEARCH & TEACHING EXPERIENCE

12/2021
|
09/2021

Teaching Assistant: QMBE 3740 - Data Mining

Hamline University

📍 St. Paul, MN

- Assisting Dr. Brett Devine in teaching 33 students concepts of data science and machine learning in R. Course covers topics such as data quality, supervised regression and classification, and unsupervised clustering and text mining.

09/2021
|
01/2020

Research Assistant to the Dean

Hamline University School of Business

📍 St. Paul, MN

- Hired in 2020 for ad hoc data science needs in the Hamline Business School. Responsibilities include working closely with Dean McCarthy, Support Staff, and Faculty to effectively manage and deploy analytics and data science projects.
- Student Analytics Director of DAC @ Hamline high school data analytics competition.

View online with links at
andrewargeros.com/resume

CONTACT

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PROGRAMMING

R

Python

SQL

Javascript

Julia

LANGUAGES

Spanish

Greek

Made with the R package **pagedown**.

References are available upon
request.

Last updated on 2022-05-17.

05/2020
|
01/2019

Research Assistant to Dr. Eric Hammer

Hamline University School of Business

📍 St. Paul, MN

- Analyzed modifications to inputs of Hawk/Dove game theory model through use of agent based simulation modeling.
- Planned collaboration on a project studying cultures' proverbs and "pop-culture" on voting behavior. Based on the work of Michalopoulos and Xue (2017) on the effects of folklore on rational voting theory.



INDUSTRY EXPERIENCE

Current
|
11/2021

Data Scientist & Software Developer

Shields Health Solutions

📍 Stoughton, MA; Minneapolis, MN

- Currently directing and implementing at-scale analytics and production grade machine learning systems affecting major health systems, pharmaceutical manufacturers, payers, and pharmacies in the realm of specialty pharmacy. Developed Shields' data science portfolio, and supporting data science efforts from concept through delivery and maintenance.
- Building production machine learning systems such as: recommender systems for provider interventions, a tabular model to predict patient risk of non-adherence, and an ensemble-based time-series forecasting API system for members to gauge and predict key performance indicators.
- Supporting Shields Core Engineering team to build in-house ETL and data software solutions using Python, R, and SQL to create a centralized data warehouse for additional ML capabilities.

11/2021
|
02/2020

Data Science Intern

ExceleraRx LLC - Shields Health Solutions

📍 Minneapolis, MN

- Supported over 30 team members across all sectors of the business for their needs in predictive modeling and federated analytics. Worked with executive teams across Excelera/Shields to make machine learning a core facet of the Excelera model of operation. Consulted data science teams of member Fortune 100 pharmaceutical manufacturers on machine learning issues. Hired as Full Time Employee in November 2021.
- Built machine learning systems to identify patients at risk for non-adherence in subpopulations of metastatic breast cancer and hepatitis C patients. Currently in development with several national health systems.
- Built a production string matching system using Zero Shot Natural Language Processing to match raw prescription text to analyzable data using serverless computing systems.

01/2021
|
10/2020

Consultant Data Scientist

Economic Development Company of Lancaster County

📍 Lancaster, PA

- Used advanced Natural Language Processing (NLP) and Computer Vision (CV) methods to analyze real-estate trends within the county. Lead a research project to be presented to Lancaster developers and realtors.
- Developed a cohort of similar communities to Lancaster, PA using T-Distributed Stochastic Neighbor Embedding (T-SNE) and Density Based Stochastic Clustering (DBSCAN) on Census data.

02/2020
|
11/2019

Consultant Data Scientist

Minnesota Hospital Association

📍 St. Paul, MN

- Analyzed workforce data on MHA's members for the association's annual workforce review.
- Presented analysis to statewide health system leaders.

01/2020
|
09/2019

Financial Planning & Analysis Intern

Northwestern Mutual

📍 Minneapolis, MN

- Worked on a team of six to analyze, forecast, and manage the financial outlooks of more than two thousand clients across the country. Oversaw client investment processes from onboarding through investment and rebalancing.
- Used basic forecasting techniques (ARIMA, Exponential Smoothing, etc.) to show trends in portfolio growth, client uptake, and advisor put-through.
- Built a production invoicing system using R and Shiny to effectively manage the department's billing and receivables.



SELECTED DATA SCIENCE PROJECTS

- 05/2022 ● **SimCSE & Image Classification Efficiency**
Hamline University Department of Computational Data Science St. Paul, MN
- Analyzed differences in parameter efficiency, validation accuracy, training times, latency of different image classification deep learning algorithms in PyTorch. Compared Sharpened Cosine Similarity to Convolutional layers for SOTA parameter efficiency.
 - Developed a real-time classifier using models in Streamlit. Hosted on Streamlit Cloud.
- 06/2021 ● **Compliance to Recommended Tuberculosis Screening Prior to Initiating Biologic Treatment**
Pharmacy Quality Alliance Annual Meeting and Conference Virtual
- Analyzed effects of date-verified screening for tuberculosis patients within the Excelera Network with respect to patient adherence and outcomes.
 - Listed as acknowledgment due to lack of pharmaceutical degree.
- 11/2020 ● **MLB Team Success: Offense vs. Defense**
The Federal Reserve Bank of Minneapolis Minneapolis, MN
- Analyzed the importance of different statistics on predicting Win/Loss percentage and strategic paradigm shift in MLB. Coauthors Ryan Brauer and Jake Dujmovic.
 - First Prize Winner at Minnesota Economic Association General Conference
- 11/2019 ● **Forecasting Soybean Futures: Prophet & VAR**
MinneMUDAC 2019 Eden Prairie, MN
- Accurately forecasted the price of three target soybean futures securities. Model comprised of an ensemble of Facebook Prophet and Vector Autoregression. Model Accuracy ~99.5%. Coauthors Lindsey Hawk and Lindsay Steiger.
 - 2nd Place Overall & Analytical Acumen Award Winner
 - Invited to present to industry leaders at FASTCON 2020
- 05/2019 ● **The Future of Renewable Energy in New York City**
BAC @ MC 2019 New York City, NY
- Optimized and analyzed a solution to convert half of New York state's energy needs to renewable energy. Coauthors Shanoah Harren, Lindsay Steiger, and Leah Wenner.
 - 4th Place Overall



PUBLICATIONS

- 03/2022 ● **Predicting Inactivity in Oncology Patients: Machine Learning Classification in The Excelera Network**
White Paper
- 03/2021 ● **Dermatology Landscape: Continued Growth Within the Excelera Network**
ExceleraRx and ShieldsRx Blogs
- Coauthor with Angela Ouyang
- 07/2020 ● **COVID & Oncology – The Effects on Health System Specialty Pharmacies**
ExceleraRx Blog