MOYI LI

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EDUCATION

Northwestern University, Evanston IL   Expected Graduation in 12/2025
Master of Science in Machine Learning and Data Science (MLDS, ex-MSiA)
- Relevant Coursework: Predictive Analytics, Data Mining, Deep Learning, Databases & Information Retrieval

University of Washington, Seattle WA   09/2021 - 06/2024
Bachelor of Science in Applied Mathematics
- Double Minor in Informatics and Data Science
- GPA: 3.95/4.0 (**Magna Cum Laude**), Dean's List for consecutive 3 years (Accelerated three-year college degree)
- Relevant Coursework: Linear Algebra, Differential Equations, Probability, Statistical Methods, Quantitative Finance, Database Systems, Machine Learning, Data Programming in Python, R, and SQL; Scientific Computing in MATLAB

PROFESSIONAL EXPERIENCE

Financial Data and Model Analyst (Python, SQL)   Conroe, TX
Internship | Weicepts LLC   06/2023 – 09/2023
- Generated precise payment schedules for users by building amortization tables with univariate analysis as foundation
- Effectively compared actual and scheduled cash flow through SQL-based operation to compute SMM & CPR for 50k loans
- Delivered a comprehensive bivariate analysis report involving over 30 variables to assess a 3-month delinquency rate
  - Focused on potentially relevant variables and investigated & analyzed the trends and factors in different U.S. regions (CA and FL) from 2009 to 2019

RESEARCH & PROJECTS

Medical Appointment Reservation System (Python, SQL, Azure)   Seattle, WA
Personal Project | University of Washington   03/2023 – 06/2023
- Introduced an automated appointment reservation system featuring auto-incremented IDs, real-time vaccine inventory updates, and user-friendly appointment verification with details like vaccine quantities and dates
- Designed database schema with E/R diagram and established distinct data models of Caregiver, Patient, and Vaccine
- Created a secure account registration system for caregivers and patients, leveraging Azure's could database for real-time password management; employed robust salting & hashing techniques with password verification measures
- Developed a synchronized schedule-search system that connects with Azure, allowing patients and caregivers to access the caregiver's availability and vaccine stock information at any time

EdX Student Model Training and Evaluation (Python)   Seattle, WA
Group Research, Group Leader | University of Washington   03/2022 – 06/2023
- Utilized multiple machine learning models including Logistic Regression, K-Nearest Neighbors, Decision Trees, Random Forests, AdaBoost and Neural Networks to predict course completion based on anonymized student data
- Achieved a 98.2% prediction accuracy in Kaggle competition, ranking first among 81 teams
- Preprocessed a 10k-record dataset, conducted train-test split, and enhanced performance by fine-tuning numerous hyperparameters; Applied Grid Search and ElasticNet techniques across all models
- Created visualizations such as heatmaps, confusion matrices, and line plots, and conducted a comparative analysis of train accuracy versus validation accuracy across different models

Time Series Analysis of Financial Market Dynamics (R)   Seattle, WA
Personal Project | University of Washington   09/2023 – 12/2023
- Conducted time series analysis on BLV, VWNDX, and NASDAQ using quantmod and PerformanceAnalytics
- Developed statistical visualizations, including autocorrelation, histograms, and QQ plots, to assess market dynamics
- Developed a Gaussian White Noise model to simulate returns and price movements, enabling a deeper analysis of financial instrument volatility and market dynamics over two decades

SKILLS & INTERESTS

- Proficient Technology Skills: **Python** (NumPy, Scikit-learn, PyTorch, TensorFlow, pandas, geopandas, matplotlib, seaborn), **R** (ggplot2, shiny, dplyr, tidyr), Power BI, Tableau, MATLAB, SQL, GitHub, Azure, PS, AE, PR, QGIS
- Language Skills: Mandarin (Native), English (Full Professional Proficiency), and Japanese (Medium)
- Attributes: Analytical Thinker with Strong Communication and Collaborative Abilities; Innovative Problem Solver