MOYI LI
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EDUCATION

University of Washington, Seattle WA — Expected Graduation in 06/2024

- Major: Bachelor of Science in Applied Mathematics: Data Science Track
- Double Minor in Informatics and Data Science
- Cumulative GPA: 3.95/4.0
- Awards and Honors: Dean's List for six consecutive semesters
- 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 and enforced stringent 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

Cancer Population Trend Analysis and Interactive Websites (R) — Seattle, WA
Group Research, Group Leader | University of Washington — 12/2022 – 03/2023

- Developed an interactive webpage using the package, Shiny, in R and extracted & transformed relevant features from the U.S. Cancer Statistics Database to improve user experience
- Designed corresponding server with user interactive linear plot, trend plot, pie chart, and choropleth map
- Launched the interactive webpage in HTML format online along with GitHub repository and analysis reports

SKILLS & INTERESTS

- Proficient Technology Skills: **Python** (NumPy, pandas, geopandas, matplotlib, sklearn, seaborn, plotly), **R** (ggplot2, shiny, dplyr, tidyr), MATLAB, SQL, GitHub, Power BI, Azure; PS, AE, PR, QGIS (Quantum Geographic Information System)
- Language Skills: Mandarin (Native), English (Fluent), and Japanese (Proficient)
- Interests: Cooking and Baking, Photography, Skiing