Yuanyou (Tony) Yao

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Education

University of Maryland - College Park — College Park, Maryland, USA
Master in Information Management — *8/2023 - Present*

University of Wisconsin - Madison — Madison, Wisconsin, USA
MS in Statistics: Data Science — *9/2019 - 8/2021*

Wuhan University — Wuhan, Hubei, P.R.China
MS in Mathematics: Applied Mathematics — *9/2016 - 6/2020*

Work Experience

Data Analyst in Retail — 9/2021 – 7/2023
China Merchants Bank — *Dongguan, Guangdong, P.R.China*
- Operating, maintaining and upgrading databases
- Analyzing and providing strategies in retail department

Projects

Defense of Scams and Frauds | *SQL, Hadoop, ETL* — 1/2023 - 6/2023
- Monitored users behaviors, extracted and clustered factors.
- Applied the algorithms to the database, wrote script for alerts.

Auto-Measurements System | *Python* — 11/2022 - 12/2022
- Developed system to tracked and stored employees' Key Performance Indicators (KPI).
- Data Analysis for optimal profit, decision and evaluation purpose.

Algorithms Comparison | *Python, Machine Learning* — 7/2021 - 8/2021
- Created a random maze and plotted
- Used BFS, DFS and A* algorithms to get the solution of the maze. Kept track of the squares it searched.

Hand-Writing Recognition | *Python, Neural Network* — 6/2021 - 7/2021
- Trained a neural network with one hidden layer.
- Used the model to predict the new hand-writing images.

Hotel Improvement | *R* — 11/2020 - 12/2020
- Developed a model both for customers and owners through statistical analysis like regression.
- Fetched reviews from YELP to provide top-rated hotels based on customers destination
- Visualized relationships between key focus and rate and provided for hotel upgrade decision.
- Used Shinyapp to combine main task results.

Spectrum Scanning of Lyman-break Galaxies | *Linux, Bash* — 9/2020 - 1/2021
- Developed a program to be able to locate an exact galaxy pattern by scanning.
- Connected and interacted with a High Performance Computer (HPC) to run algorithms.
- Used Bash to control the performance on HPC. Used parallel computing as well.

Analysis of Risk Premium of Corporate Bond | *Bachelor Degree Thesis* 1/2020 - 6/2020

* Applied historical theories into actual markets to get a risk-free yield curve.
* Divided into macro and micro categories for research and analysis, leaded to the conclusion that GDP and M2 have a huge impact.
* Suggested reduce dependence on the money supply in the development.

Skills

Knowledge: Database, Data Structures, Algorithms
Languages: Python, SQL&NoSQL, JavaScript, HTML/CSS, R, Bash
Frameworks: React, Node.js, Hadoop
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, Pytorch
Libraries: Pandas, NumPy, Matplotlib, Pycharm, Pytorch
OS: LINUX/UNIX