Xiangyu (Rayna) Zeng

Ithaca, NY | +1 (405)-318-1109 | xz853@cornell.edu | www.linkedin.com/in/raynaz

EDUCATION

Cornell University - GPA 4.0/4.0 **Aug. 2023 - Dec 2024**
M.S. Engineering, Operations Research and Information Engineering - Data Analytics **Ithaca, NY**

University of North Carolina at Chapel Hill - GPA 3.9/4.0 **Aug. 2019 – May 2023**
B.S. Mathematics; B.S. Statistics and Analytics; Entrepreneurship Minor **Chapel Hill, NC**

Relevant Coursework: Machine Learning, Big Data Technology, Time Series Analysis, Service System Modeling, Monte-Carlo Simulation, Stochastic Modeling, Game Theory, Data Structure, Optimization, Linear Algebra, Probability, Calculus

SKILLS

- **Programming:** Python, Java, SQL, Hive, R, HTML, CSS, PySpark, Dart
- **Analytical Tools:** Dashboard Design (Tableau, Power BI), SQL Server/workbench, Databricks, Snowflake, Scikit-learn
- **Machine Learning**: Linear/Logistic Regression, Decision Tree, Regularization, KNN
- **Analytical Techniques**: Statistical Analysis, Optimization, User Segmentation, Funnel Analysis

EXPERIENCES

WEGMANS Ithaca, NY
Analyst Consultant (Capstone Project) | SQL, Python, Excel, R Oct. 2023 - Present

- Leading end-to-end optimization of Wegmans' supply chain network, encompassing analysis of current logistics, distribution centers, and constraints, aiming to improve the efficiency of distribution centers
- Developing and implementing a Python-based linear programming model to reduce transportation expenses within set volume and budgetary constraints
- Executing detailed exploratory data analysis on shipping information, identifying inefficiencies in distribution centers
- Recommending strategies for volume and throughput rebalancing and inbound product flow streamlining, resulting in an reduced trailer needed, where achieve an average saving of $1,000 per trailer reduced
- Performing sensitivity analysis to evaluate the resilience of the supply chain model under diverse market scenarios

WELL DOT, INC. Chapel Hill, NC
Data Analyst Intern | SQL, Tableau, Excel Jan. 2022 - May 2022

- Targeted more than 30,000 users in the wellness app WELL and provided corresponding recommendations for the member service team of operation strategies
- Extracted, transformed, and loaded more than 10GB wellness data using SQL from Salesforce to analyze user behaviors, identified potential users who needs health advice or physical health support, increased customer engagement by 30%
- Investigated metrics variations to identify root causes of changes in MAU, DAU
- Designed Tableau dashboards to capture the drop-offs to help business understand the loss and the opportunities
- Created scalable reporting solutions with industry trends and most actional insights for executive team (CFO)

ENZE FUND OF SINOPEC CAPITAL CO., LTD Beijing, China
Analytical Intern, Market Research May 2021 - Jul. 2021

- Collaborated with investment team to conduct market research for new energy and new material industry, analyzed industry trends, and geo factors to evaluate the risks and opportunities
- Performed comprehensive data research and analyzed market profile from demographics and geographic aspects, and provided key insights to multiple levels of stakeholders

RESEARCH & PROJECTS

Ride Smart - Optimization of Citi Bike Sharing System in NYC Sep. 2023 - Dec 2023

- Led a team of 2 to analyze 3.7M biking data and predicted bike usage patterns to improve its allocation system efficiency
- Optimized bike fleet allocation by building a linear programming model, developed a new overnight bike repositioning strategy resulting in average daily outage of only 0.36%, ensured optimal distribution for peak demand
- Developed models using Python and Pandas, and turning extensive datasets into actionable insights; authored a comprehensive 10-page report detailing the findings, recommendations, and potential impact on urban transit

Cancer Detection - Honors Thesis on Graph Partitioning Aug. 2022 - May 2023

- Analyzed neural data and applied a graphical partition algorithm to separate cancer cells from healthy cells
- Implemented cancer detection algorithm using R to partition thousands of nodes, classified different types of cells by properties of protein markers based on a dataset with more than 5000 nodes
- Evaluated and compared the accuracy and time complexity of the new algorithm with existing partitioning algorithms including K-means, Louvain method, and packaged the new algorithm in R with documented guidance
- DOI: https://doi.org/10.17615/21tq-6h53