JINGJING (OLIVIA) LIANG

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EDUCATION

UNIVERSITY OF MINNESOTA, Minneapolis, MN
Candidate for **Master of Science in Business Analytics (**Carlson School of Management**)** May 2020

MINZU UNIVERSITY OF CHINA, Beijing, China
Bachelor of Science (Honors) in Financial Management June 2019

- Exchange student, University of Minnesota, Minneapolis (Fall 2017)

WORK EXPERIENCE

CARLSON ANALYTICS LAB, Minneapolis, MN
Data Science Student Consultant July 2019 - Present

Client: Fortune 10 Healthcare Company (Deep Learning) – Ongoing Project

- Generate synthetic data that retains statistical similarity and model compatibility using GAN model in Python to make PII data sharing and analysis safer and more efficient.
- Facilitate the project as an engagement manager as well as design methodology for evaluating similarity using dimension reduction techniques such as Auto-encoder neural network, PCA, and t-SNE as well as Cosine Similarity measurement.

Client: Leading Hospitality and Entertainment Business (Unsupervised Learning)

- Evaluated the effectiveness of ~$1.2B-worth coupons as well as segmented coupon and customer types respectively using clustering method in Python.
- Optimized coupon allocation for different customer segments using Association Rules and visualized results in Power BI.

Client: Mall of America (Exploratory Analytics)

- Created a dashboard transforming unstructured data into a compelling visual story using Tableau to report hourly hotspots in different locations at MOA
- Conducted exploratory analysis on 34K+ call logs in R to uncover calling patterns and factors affecting number of calls, forecast the number of calls with Regression, and present insights to business stakeholders to facilitate decision making.

IQIYI, Beijing, China
Data Analyst Intern, User Growth Department December 2018 - April 2019

- Collected and transformed data in MySQL and crafted periodic statistical reports on user behavior using Python and Power BI
- Performed data anomaly detection in R and Python with well understanding of the pipeline of media marketing channels
- Discovered strategic insights through user segmentation and retention analysis for product and marketing teams
- Managed data demands/projects and communicate analytical findings with various cross-functional stakeholders

DELOITTE, Beijing, China
Risk Analyst Intern April 2018 - July 2018

- Identified cyber security compliance gap, combined multiple Excel files using SQL, and reduced manual effort by 50%
- Forecast investing trends between Taiwan and Mainland China with ARIMA model and performed data visualization in R
- Presented and communicated findings to project directors and cross-functional senior stakeholders

DATA SCIENCE PROJECTS

Time Series Forecasting: Conducted feature engineering and built LSTM Seq2Seq model and XGBoost on 296K+ training visit records to forecast the number of visitors on specific date for 150 Japanese Restaurants

Inferential Experiment Design: Designed a causal inference experiment using survey and R to analyze whether people are more likely watch a Netflix show where the thumbnail includes a person of their race.

Ads Click Prediction: Performed batch processing and Random Forest modeling with Spark SQL and MLlib on Amazon EMR to predict Ads click-through rate on 100 GB relational dataset, then built visualization dashboard using QuickSight.

Airline Customer Loyalty: Performed semi-supervised algorithm (constrained clustering) on 3.5M+ ticket-level data of an airline company with RFM Customer Value Evaluation model using R to segment customers for loyalty program.

Recommender System: Conducted Collaborative Filtering using Matrix Factorization in both Python and R on 25 MB MovieLens dataset that contains 25M ratings to make personalized movie recommendations for users.

SKILLS

Tools: Python, R, MySQL, Hadoop, Hive, Spark, MapReduce, Tableau, Power BI, AWS, MS Excel, Stata, SPSS
Techniques: Machine Learning, Data Warehousing, A/B Testing, Descriptive Analysis, Big Data Analysis, Data Visualization