

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 – May 2020

Client: Fortune 10 Healthcare Company (Deep Learning)

- Generated tabular synthetic data that retains statistical similarity and model compatibility using cutting-edge GAN model in Python, which is a breakthrough that enables confidential clinical data sharing and analysis safely and more efficiently.
- Tailored metrics for statistical similarity evaluation using KL-divergence and data reduction techniques such as Auto-encoder neural network, PCA, and t-SNE for visualization, which proved clinical data from GAN algorithms has over 95% similarity.
- Designed roadmap and project plans using Jira, communicated weekly within the team and all stakeholders as an Engagement Manager, and led the team to win a recognition as top 1-2% project among all ELP projects.

Client: Leading Hospitality and Entertainment Business (Unsupervised Learning)

- Evaluated the effectiveness of ~\$1.2B worth coupons and segmented customer using clustering method in Python.
- Optimized coupon allocation using Association Rules, the result of which potentially increased 128k+ headcounts.
- Created a dashboard in Power BI, presented to all stakeholders, and won the second place among 24 submissions.

Client: Mall of America (Exploratory Analytics)

- Created a dynamic geo-dashboard in Tableau and transformed data into a compelling visual story that reports hourly hotspots.
- Conducted exploratory analysis on 34K+ call logs in R to uncover calling patterns and factors affecting number of calls.
- Presented insights and recommendation to business stakeholders, which increased the efficiency of decision making by 60%.

IQIYI, Beijing, China

Data Analyst, User Growth Department (Media Industry)

December 2018 - April 2019

- Collected user data distributed among 30+ major mobile channels in MySQL and crafted periodic reports in Power BI.
- Assessed and adjusted data gap between local and cloud databases and increased the database quality and integrity by 40%.
- Created prototype of user segmentation and retention analysis in Python on 100M+ user data for product and marketing team.
- Managed 15+ data projects and explained analytical data preparation and results with cross-functional stakeholders.

DELOITTE, Beijing, China

Risk Analyst (Consulting Industry)

April 2018 - July 2018

- Explored descriptive analysis on 20k+ industry-level investment data and time series forecasting using ARIMA model in R.
- Evaluated indicators that potentially increase cyber security compliance risk using univariate statistical hypothesis testing in R.
- Designed Tableau dashboard and translated analytical findings to project directors and non-technical senior stakeholders.

INDUSTRIAL & COMMERCIAL BACK OF CHINA, Beijing, China

Financial Analyst (Finance Industry)

June 2017 - August 2017

- Manipulated 10K+ personal loan data using SQL and created descriptive reports on demography and performance in Python.
- Created prototype on data integration and data engineering for credit fraud detection, which reduced project duration by 40%.

DATA SCIENCE PROJECTS

Inferential Experiment (A/B testing): Collected 500+ survey data and designed a causal inference experiment in R using randomization to analyze whether people are more likely watch a Netflix show where the thumbnail includes a person of their race.

Time Series Forecasting (ML): Conducted feature engineering and built Seq2Seq model with LSTM on 296K+ training visit records to forecast the number of visitors on specific dates for 150 Restaurants, the result of which ranked in top 20% on Kaggle.

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

SKILLS

Tools: Python, R, MySQL, Hadoop, Hive, Spark, Tableau, Power BI, AWS, MS Excel, CPLEX, Jira, Stata, SPSS

Techniques: Machine Learning, NLP, Data Warehousing, A/B Testing, Descriptive Analysis, Big Data, Data Visualization