

Qi (Monica) Mao

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EDUCATION

Carnegie Mellon University	Pittsburgh, PA
Master of Information Systems Management - Business Intelligence and Data Analytics , GPA 3.9/4.0	12/2022
Coursework: Deep Learning, Machine Learning, Advanced Business Analytics, Big Data & Large-scale Computing Java Programming, Data Focused Python, Data Structures, Unstructured Data Analysis, Database	
Honor: 2021 Fall Semester Awarded for the outstanding academic performance	
Nankai University	Tianjin, China
Bachelor of Business Administration (BBA), Financial Management , GPA 3.8/4.0	06/2020
Coursework: Python and Machine Learning, Introduction to AI, Calculus I-II, Statistics, Linear Algebra	
Honors: 2017 Academic Excellence Scholarship, 2018 Innovation Scholarship, Excellent Student Leader	

SKILLS

Programming Languages:	Python (Scikit-Learn, NLTK, PyTorch, NumPy, Pandas), SQL, Java, Hive, Spark
Machine Learning:	Regression (Linear, Logistic, Lasso, Ridge), Ensemble Learning (Bagging: Random Forest, Boosting: GBDT, XGBoost), NLP (Topic Modeling, Sentimental Analysis, Text Mining, Clustering), Dimensionality Reduction (PCA, MDS, t-SNE, LDA, Isomap)
Visualization Tools:	Tableau, Plotly, Matplotlib, Excel, Adobe (Photoshop, After Effects, Illustrator)
Statistical Techniques:	Sampling, Hypothesis Testing, A/B Testing, Regression, Clustering

WORK EXPERIENCE

Tencent	Shenzhen, China
<i>Applied Research Scientist Intern</i>	10/2020 – 07/2021
<ul style="list-style-type: none">Populated 12 new user portrait and behavioral features for Xgboost models, lifting KS to 20% and PSI < 0.1Enhanced automated scripts with PySpark for feature selection, fluctuation monitoring, model evaluationDevised and implemented experiments on dimensionality reduction using embedding and TDANN algorithmsDelivered ad-hoc analytical results, collaborated with product team to design products and acquired 2 clients	
Apple	Beijing, China
<i>Data Analyst Intern</i>	02/2020 – 05/2020
<ul style="list-style-type: none">Examined promotion activities of competitors on online marketplaces using Scrapy and SeleniumGained key findings from customers by implementing NLU method (including word segmentation, Bag-of-words model, PMI calculation and clustering analysis) to analyze comments on both Apple and competing productsDesigned a Tableau dashboard of the up-to-date performance of stores with multiple evaluation metrics	
Amazon	Beijing, China
<i>Business Analyst Intern</i>	06/2019 – 02/2020
<ul style="list-style-type: none">Monitored efficiency of global vendors by deploying SQL queries to investigate order-level data; researched into key drivers behind performance fluctuations and actively communicated with global stakeholders and partnersConstructed pipelines and completed 12 big data Extract-Transform-Load (ETL) tasks; launched 8 data-driven reports using Tableau or Excel Macros; achieved automation in publishing and identifying highlights/lowlightsBoosted 2019 Black Friday in Europe, Japan and India by taking critical supply-chain configurations including warehouses work shift and delivery pickup settings; corporately won Super Team award	

PROJECTS

Credit Risk Modelling with Increasing Phishing App Downloads	10/2020 – 12/2020
<ul style="list-style-type: none">Scraped labels and tags data from online app markets; Implemented text classification models using Word2VecExploited labels using Frequency-Category Ratio to boost performance on embedding-based text classificationTime serial analysis with ARIMA model for download forecasting of listed application from phishing developersEvaluated 898 newly populated features and reduced to 12 dimensions performing feature selection and PCA	
E-commerce reviews NLP Analysis	11/2021 – 11/2021
<ul style="list-style-type: none">Performed EDA and NLP tokenization on 100k+ raw data; generated term frequencies and co-occurrence matrixApplied TFIDF and performed LDA to cluster 8 topics of reviews, helping understand customer needsVisualized topics-reviews proportion using T-SNE; compared customers' attitudes by sentimental analysis	

LEADERSHIP

2019 HSBC Business Case Analysis Competition , National Second Runner-up	04/2019 – 05/2019
2018 L'Oréal Charity Sales , National Social Welfare Award	05/2018 – 06/2018
Student Union of Nankai University , Minister	09/2016 – 09/2018