

Yaqi Huang

Email: hyq941@gmail.com

Phone: (202) 308-8650

GitHub: <https://github.com/evelyn941>

RESEARCH INTERESTS

NLP, graph analytics, computational statistics, high-dimensional statistics

EDUCATION

Johns Hopkins University

May 2023

M.S. in Applied Economics

GPA: 3.79/4.00

- Relevant coursework: Statistics, Machine Learning in Statistics, Financial Econometrics [Time-Series Analysis]

Macau University of Science and Technology

Jun 2021

B.B.A. in Business Analytics

GPA: 3.64/4.00

- Relevant coursework: Data Mining, Big Data, Data Structure and Database, Systems Analysis and Design, Business Statistics

RESEARCH EXPERIENCE

Large-Scale User Reviews Analysis through Natural Language Processing (NLP) for Product Improvement

Feb 2021-Apr 2021

Advisor: Yue Chen

- Led an empirical study on the feasibility of leveraging large-scale user reviews to extract insights for improving products and customer experiences, developing a cost-effective alternative to traditional questionnaires.
- Collected data using **Python web scraping**; Applied **sentiment analysis using snowNLP** to assess customer positive and negative attitude towards products; Implemented **word cloud** and **LDA Topic Modeling** to uncover key topics in reviews.
- Achieved meaningful insights that identified key product features valued by customers, guiding merchants in product iterations.

RFM Model-based Customer Segmentation through K-Means Clustering for Marketing Strategies Optimization

Sep 2020-Nov 2020

Advisor: Honghao Zhao

- Explored the feasibility of segmenting customers using a combination of the RFM model and **K-Means clustering**, focusing on the realization of personalized marketing approaches through effective customer segmentation.
- Applied **RStudio** to extracted 3 key features (recency, frequency, and monetary value) from users' purchase data and applied the K-means clustering to segment customers.
- Identified 5 distinct customer segments, achieving effective segmentation for incorporating personalized marketing strategies.

Personalized Coupon Usage Prediction in O2O Context Using Machine Learning

Apr 2020-Jun 2020

Advisor: Honghao Zhao

- Developed models to predict whether users would use a coupon within 15 days of issuance based on online and offline consumer behavior data and merchant data, aiming to improve coupon redemption rates and enhance targeted marketing strategies in the O2O context.
- Extracted 60+ features and trained machine learning models using algorithms including **Boosting**, **Random Forest**, **ANN**, **SMOTE**, and **stacking model of Random Forest & XGBoost** using Python; Optimized models through **Bayesian optimization**.
- Achieved a prediction accuracy of 0.7628, enhancing the personalized coupon issuance.

Causal Impact of Resort Business on Local Aviation and Hotel Industries—A Case Study of Shanghai Disneyland Park

Feb 2020-Mar 2020

Advisor: Yan Chen

- Analyzed seasonality and trends in resort revenue and tourist traffic using **autocorrelation** in time-series data via **Minitab**; Compared the results with the seasonality and trends of hotel occupancy rates and airport financial performance.
- Identified matching seasonality and trends across industries, suggesting a potential economic influence of the resort on local aviation and hotel sectors.
- **Potential methods to refine research:** Implement cross-correlation, multivariate regression, and incorporate surveys to better account for confounding factors.

PROFESSIONAL EXPERIENCE

Data Analyst

Jul 2023-Present

CWP Consulting

Washington, DC

- Enhanced user data accessibility and validity by redesigning omni-channel campaigns.
- Achieved a 6% increase in email open rate and a 1.5% increase in click-through rate through audience segmentation and a **Python-based** quantitative model for personalized marketing.
- Developed interactive dashboards via Tableau for tracking customer visits and purchase behavior.

Business Analyst Intern

Sep 2021-Dec 2021

Kuaishou Technology (OTCMKTS: KSHTY)

Beijing, China

- Conducted in-depth competitive product research; Synthesized findings from **expert interviews** and **desktop research** to inform the development of social features in Kuaishou's app.
- Utilized **Hive SQL** to extract creators data; Computed estimates for potential creators and production output, aiding the operations team in developing short video-related features.

Product Manager Intern (Search Strategy)

May 2021-Aug 2021

Tencent Holdings Ltd. (OTCMKTS: TCEHY)

Shenzhen, China

- Prioritized 15+ user stories based on reach, impact, and complexity to facilitate development.
- Developed a data dashboard using **Hive SQL** to monitor key metrics of the video filter feature.

Business Analyst Intern

Aug 2020-Oct 2020

Deloitte Consulting LLP

Beijing, China

- Produced a comprehensive 32-page analytical report on the Industrial Internet of Things (IIoT) based on thorough desktop research.
- Composed 2 informational newsletters on AI by tracking global market news and analyzing domestic trends.

HONORS & REWARDS

Graduated with First Class Honors Macau University of Science and Technology	2021
First-grade Scholarship (Top 20) for 4 Academic Years Macau University of Science and Technology	2017-2021
Dean's List (Top 10%) for 2 Academic Years Macau University of Science and Technology, School of Business	2017-2019

SKILLS & LANGUAGES

Skills: Python (NumPy, Pandas, Matplotlib, scikit-learn, TensorFlow, GeoPandas), MS SQL, RStudio, SPSS, Minitab, Gephi, Tableau, Power BI, L^AT_EX

Languages: Chinese (fluent), English (fluent)

TEACHING & MENTORSHIP EXPERIENCE

Mentor of Interns CWP Consulting	Oct 2023-Present
--	------------------

- Mentored 4 interns by preparing an intern handbook, facilitating onboarding, and conducting periodic one-on-one meetings to provide performance feedback and address their questions.
- Interns Mentored:
Jalexa Abreu, *Sep 2024–Present*
Milan Jain, *Sep 2024–Present*
Wenyu Wu, *Sep 2024–Present*
Ziwei Yue, *Oct 2023–May 2024*

Vice-Chair of Academic Department Model United Nations Association, Macau University of Science and Technology	Oct 2018-Apr 2020
--	-------------------

- Trained 10 new delegates by guiding them through relevant research papers, resulting in 80% of the new delegates delivering at least 2 speeches at the on-campus Model United Nations conference.

Teaching Assistant Advanced Mathematics, Macau University of Science and Technology	Sep 2019-Dec 2019
---	-------------------

- Formed an online discussion group for students, assisted them with assignment-related questions, and provided reminders about assignments requirements and due dates.
- Provided answer keys for 2 quizzes and 6 assignments.

MEMBERSHIP

Member of Society of Women Engineers	2024-Present
Member of Women In Technology	2024-Present