

Xuyang (Celine) Ji

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SUMMARY

- **Data Scientist/Data Analyst**, with analytics experience from **TikTok & Critical Mass**; **M.S.** in Data Science.
- Proficient in **SQL, Python, and Power BI**; Specialized in business insights, performance KPIs, dashboard, Machine learning.
- Contributed to a 13% revenue lift through in-depth data analysis, media asset optimization, and A/B testing.

TECHNICAL SKILLS

- **Programming & Tools:** SQL, Python (SciPy, PySpark, TensorFlow, PyTorch), R, Git, Tableau, Power BI
- **Data Analysis:** ETL Pipeline, A/B Testing, Statistical Inference, Big Data Analytics, Time Series Analysis
- **Models/Methods:** Linear/Non-Linear, Predictive Modelling, Classifications, Clustering, Reinforcement Learning.

EDUCATION

DePaul University

Master of Data Science, concentrated in Computational Methods and Marketing | GPA: 4.0

Chicago, IL

Feb 2022 - Jun 2024

Columbia University in the City of New York

Master of Science in Integrated Strategic Communications, Focus in Marketing Analytics

New York, New York

Sep 2020 - Dec 2021

University of Illinois at Urbana-Champaign

Bachelor of Science in Advertising, Minor in Public Relations

Urbana, IL

Aug 2016 - May 2020

EXPERIENCE

Senior Marketing Science Analyst | Critical Mass

Nov 2024 - Now

- Conducted customer lifetime value and campaign performance analysis using SQL and Python, delivering actionable insights that optimized conversion rates by 27% through the design and execution of **randomized testing** plans.
- Built scalable data models and developed interactive dashboards in **Power BI**, delivering actionable insights for various executive level users across 8 business unit, drove a 15% lift in client campaign ROI through granular performance analysis and visualization.
- **Engineered automated ETL workflows** and implemented Python cross-referencing scripts to streamline the data migration process, reducing manual inspection time by 80% and improving data reliability across key dimensions.
- **Advanced SQL skills** and experience with large, complex datasets. Conduct data profiling, data cleansing, and assessing the integrity of data using multiple tables joins, CTE, temporary tables, and analytical functions with **Redshift** to ensure quality data.
- Leading the development of Data Dictionaries and Data Taxonomy for product solutions. Collaborate with XFN team to design and implement internal process improvements, greater scalability and optimization of data delivery, and automating manual processes.

E-commerce Analyst | SparksGlo LLC

May 2024 - Nov 2024

- Analyzed and optimize user journey conversion paths with SQL, increased CTR by 12% with **A/B testing** on multichannel keyword strategy. Investigated user search behaviors and **win/loss pattern** to optimize ROI.
- Designed interactive **Tableau** dashboards to track user behavior and campaign performance, delivering actionable insights to enhance ROI and user engagement.

Global Business Solutions Analyst | TikTok

Oct 2020 - Jan 2021

- Assist SQL and Python-driven data projects to maximize market share, optimize product attribution and campaign monetization, contributing to a 13% incremental revenue lift and an 11% boost in brand recognition.
- Optimized media asset packages to enhance new user sign-ups, service tiers and advertising features. Utilized Python to analyze 300+ client surveys with Multinomial Logistic Regression to simulate purchase decisions.

PROJECTS

E-commerce Churn Analysis For Retention Strategies [Python, Dash]

Feb 2024 - Apr 2024

- Created interactive Matplotlib **Dashboard** with Dash to highlight key consumer patterns between high-churn-rate segments and active users, and relationships of primary factors and its effect on churning.
- **Predicted future churns** within the performance window with **end-to-end machine learning process**, including Random Forest, XGBoost, KNN, SVM and Gaussian NB, fine-tuning parameters through grid search, achieved 0.89 for F1 score.
- Uncovered critical segments of churning customers using PCA and Clustering models, with silhouette analysis. Conducted feature engineering to identify indicators associated with Churn, and proposed new engagement strategy for churnable users with high propensity scores.

Ad Channel Effectiveness Analysis [MySQL, Tableau, Python]

Jan 2024 - Mar 2024

- Delved into product-level sales and refund rates to enhance cross-selling strategies and monitor product quality, identified high LTV user segment and session-to-order conversion for tailored cross-channel strategy.
- Performed conversion funnel analysis with multi-step landing page journey with temporary table, and visualized data with **Tableau** to identify pain points with high drop-out rate that can improve sales and web traffic.
- Developed **ARIMA time series models** in Python to identify seasonal demand patterns to enhance inventory strategy, achieved 18% sales uplift with simulated data by adjusting the bidding and channel strategy.