

Qinghua (Sarah) Xia

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EDUCATION

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|---|--------------------|--|
| University of Chicago <i>Master of Science in Applied Data Science</i> | GPA 4.0/4.0 | Chicago, IL Expected 12/2025 |
| The Ohio State University <i>Bachelor of Science in Economics & Mathematics Minor in Business Analytics</i> | GPA 4.0/4.0 | Columbus, OH 08/2020-05/2024 |

SKILLS

- **Certifications:** Tableau Desktop Specialist (2025), Software Engineer Certificate (2025)
- **Business & Strategy:** Marketing Science, Project Management, Business Development, CRM
- **Programming & Data Tools:** Python, R, SQL, Excel VBA, MATLAB, STATA, Power BI, Tableau
- **Machine Learning & AI:** Generative AI, NLP, Predictive Analytics, Time Series Analysis, Forecasting, Optimization, Data Warehousing
- **Analytics & Product Tools:** Google Analytics, A/B Testing, Cloud Computing, UI/UX Design

PROFESSIONAL EXPERIENCE

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| Kuaishou Technology, Beijing, China <i>KSIB – Commercialization – Digital Product Manager Intern</i> | 07/2024 – 11/2024 |
| <ul style="list-style-type: none">• Identified spending patterns across 10M+ transactions using MySQL & Power BI, optimizing campaign targeting and increasing commercial consumption by 42.5%.• Conducted A/B testing on video relevance impact, leading UI/UX improvements that boosted ad-driven purchases by 18%.• Implemented clustering to segment high-value users and developed a personalized ad-flow algorithm, resulting in a 25% conversion uplift, 20% more total conversions, 10% higher engagement, and 35% more installs. | |
| All-State Brokerage, Columbus, OH, USA <i>Consulting Group - Data Analyst Intern</i> | 09/2023 – 05/2024 |
| <ul style="list-style-type: none">• Utilized ARIMA & GARCH models for a 3-year volatility analysis on VEETEE Rice, optimizing promotional timing to avoid low-demand periods and prevent a 15% revenue loss.• Developed Random Forest models and Monte Carlo simulations to forecast industry trends, enabling optimized retail promotions that increased net profit margins by 10%.• Developed interactive VBA dashboard integrating R and Tableau, enabling real-time visualization of sales trends and customer segmentation. Improved data accessibility, driving a 20% boost in sales and profitability. | |
| Deloitte, Shanghai, China <i>C&M Digital Customer - Consulting Intern</i> | 05/2023 – 08/2023 |
| <ul style="list-style-type: none">• Engineered Deloitte's Salesforce Migration Tools UI in Figma, streamlining task completion by 30% and reducing training time by 40% through interactive tutorials.• Performed market macro trend analysis by examining industry reports, competitive landscapes, and economic indicators to forecast sector growth. Developed a market sizing model incorporating TAM, SAM, and SOM, supporting clients in revenue projection and investment decisions.• Utilized K-means & DBSCAN clustering for demand forecasting, formulating 3 market entry strategies that enhanced financial feasibility assessments. | |

iFLYTEK, Hefei, Anhui, China

03/2023 – 05/2023

Big Data Engineer

- **Designed and automated ETL pipelines** using **SQL, Python, and Apache Airflow**, extracting and transforming structured HR data from multiple sources, reducing **data latency by 30%** for real-time analytics.
- **Optimized workflow performance** by integrating materialized views, indexing strategies, and parallel processing, **boosting query efficiency by 40%** and accelerating HR reporting.
- **Enhanced data pipeline reliability** by implementing data validation, anomaly detection, and error handling mechanisms, ensuring **99% data accuracy** in HR dashboards.

RESEARCH & PROJECT

Nutrition Density Prediction Model | [Live Demo](#) | **University of Chicago** 12/2024 - 03/2025

- **Built an AI-driven nutrition density prediction model** with **Random Forest & Elastic Net**, achieving **88.7% accuracy** in assessing food nutrient quality. Integrated **NLP (spaCy, Word Embeddings, Cosine Similarity)** to standardize food names and enhance classification.
- **Implemented K-Means and DBSCAN clustering**, segmenting foods by nutrient composition to enable personalized diet recommendations. Optimized **ETL pipelines** to process **35+ key nutrient variables** in a scalable ML model.
- **Developed an interactive web application**, empowering **dietitians, food businesses, and digital health platforms** with real-time nutrition insights for ingredient analysis and product optimization.

E-Commerce Recommendation Engine | **University of Chicago**

09/2024 – 12/2024

- Analyzed 50,000+ transaction records using **Python and SQL**, uncovering spending patterns and optimizing segmentation strategies to enhance customer engagement.
- Applied **RFM analysis and clustering** to classify users into eight distinct segments, improving retention strategies and driving a **15% increase in repeat purchases**.
- **Optimized customer classification models**, evaluating XGBoost and Random Forest before refining an unsupervised approach, boosting recommendation accuracy by 20%.
- Presented **data-driven insights** to executives, demonstrating how personalized recommendations could increase conversion rates by 18% and unlock new revenue opportunities.

PUBLICATION

Analysis the Influence of Different Market Capitalization IPOs on the Stock Market 07/01/2022

- First author, supervised by Prof. Honigsberg
- DOI: 10.2991/aebmr.k.220603.204
- ISSN: 2352-5428

HONORS AND AWARDS

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| Case Competition World Cup – Top 50 | 01/17/2025 |
| Oliver Wyman Case Competition China District – Top 100 | 05/20/2024 |
| Dean’s List (Top10%) | 12/10/2020 - 05/05/2024 |
| Tumbleson Scholarship | 06/01/2023 - 05/05/2024 |
| 1 st Prize in the 3rd Annual Diversity Case Study Competition | 10/01/2022 |
| 1 st Prize in OSU DATAFEST-Best Insight | 04/10/2022 |
| National Silver Medal in the International Exhibition for Young Inventors | 10/20/2020 |

VISA STATUS

F1 Visa (STEM OPT)