Jade Cheng

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EDUCATION

Duke University   Durham, NC
Master of Science in Statistical Science   *Aug 2025 – May 2027*
Communication University of China   Beijing, China
Bachelor of Engineering in Data Science   *Sep 2021 – June 2025*
- GPA: 3.80/4.00 Top 10%
- SQL, Python, Machine Learning, Data Visualization

EXPERIENCE

Software Center of the Industrial and Commercial Bank of China   June 2023 – Aug 2023
Data Analyst Intern   *Beijing, China*
- Analyzed 12 months of customer activation, transaction, and app-binding data using **SQL**, identifying behavioral trends among users aged 18–22 and a **130.97% surge** in new card activations during the back-to-school season.
- Conducted **data cleansing, segmentation, and exploratory analysis** on multi-platform binding data (JD.com, Meituan), revealing major adoption gaps (70.47% and 56.13% unbound) that directly informed marketing and partnership strategies.
- Designed and monitored **A/B testing** experiments using SQL, optimizing channel selection and push timing, and collaborated cross-functionally to deliver an **18% overall conversion increase** (25% JD.com, 22% Meituan, 15.6% CTR).

PROJECTS

User Behavior Modeling for an Online Crossword Game | *Statistical Modeling*   Nov 2023 – Feb 2024
- **Built statistical and system dynamics models** to analyze player behavior and churn drivers across difficulty modes, translating results into core business metrics including retention rate, churn rate, and **DAU/MAU**.
- Applied **ARIMA time-series models** to forecast active users, linking difficulty and novelty effects to LTV, identifying high-churn segments, and recommending targeted difficulty and content optimization.

Behavior Analysis and Visualization for China Mobile | *SQL, PowerBI*   June 2024 – July 2024
- Designed and maintained a **MySQL data pipeline** for large-scale mobile signal data, supporting reliable data extraction and transformation.
- Developed interactive **Power BI dashboards** to visualize real-time visitor density, demographic profiles, and attraction clustering.

Neural News Recommendation System with LLM Explanation | *Python, ML, NLP*   Dec 2024 – May 2025
- Processed and engineered large-scale datasets using **Pandas and NumPy**, performing data cleaning, normalization, and feature engineering to ensure reproducibility and analytical accuracy.
- Built a **Flask-based backend and Vue.js frontend** to deploy a recommendation system, integrating **LLM models and prompt refinement** to serve model inference and user-facing explanations via APIs.

TECHNICAL SKILLS

Programming Languages: Python, SQL, C/C++, R
Analysis & Statistical Techniques: Statistical Modeling, Machine Learning, A/B Testing
Data Tools: Tableau, Power BI, Excel
Libraries: Pandas, NumPy, Skilearn
Additional: Teamwork, Communication, Time-management