

Junqi (Jack) Chen

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Professional Summary: Strategic and results-driven Data Science Leader with extensive experience leading high-performing analytics teams to drive measurable business impact. Proven track record in delivering actionable insights and machine learning solutions that drive revenue growth, customer retention, optimize marketing performance, and enhance customer experience. Expert in building and mentoring data science teams, establishing robust decision frameworks, and operationalizing ML models in production. Demonstrated success in Conversion Rate Optimization, predictive modeling, Multi Touch Attribution, and experimentation design, translating complex data into strategic business recommendations.

Key Expertise:

- Machine Learning
- Uplift Modeling
- Bayesian test measurement
- A/B Testing & Experimentation
- Causal Inference
- Conversion Rate Optimization (CRO)
- Multi Touch Attribution (MTA)
- Team Leadership & Mentorship
- Marketing Analytics
- Revenue Forecasting

PROFESSIONAL EXPERIENCE

DISCOVER FINANCIAL SERVICES

Riverwoods, IL

SENIOR MANAGER, DEPOSITS MARKETING ANALYTICS

Jan 2023 – Present

Lead a globally dispersed team of 4 data scientists to support acquisition channels, including Direct Marketing (\$30MM budget) and Conversion Rate Optimization (CRO). Recruit, train, mentor, and promote data science professionals to build a cohesive team.

- Built and deployed XGBoost targeting models for Savings and CD acquisition campaigns — spanning feature engineering, training, and production deployment on Snowflake/AWS — driving \$70MM in incremental deposits and 10% efficiency gains; implemented monitoring pipelines for proactive model performance tracking.
- Led incentive offer experimentation (design - analysis - rollout), achieving up to 200% lift on response and 60% reduction on cost per dollar, while expanding learnings for future personalization.
- Spearheaded the development and alignment of CRO measurement and decisioning framework, enabling the teams to make better and faster decisions to optimize customer online experience, which drove over \$200MM incremental deposits annually.
- Adopted Bayesian test measurement methodology, cutting test duration by up to 40% while maintaining guardrails on risk and statistical rigor.
- Lead ongoing upkeep of an in-house multi-touch attribution workflow, regularly refreshing campaign inputs to ensure accurate, timely performance measurement.
- Steer monthly reforecasting of key growth metrics by collaborating with Marketing, Finance, and leadership, identifying gaps and opportunities to inform marketing investment decisions.

MANAGER, CARD PORTFOLIO MODELING

Sep 2020 – Dec 2022

Developed and implemented credit card attrition models (XGBoost) to support customer retention initiatives. Developed models to predict price sensitivity for Balance Transfer program using historical pricing test campaigns.

- Spearheaded Uplift modeling POC for Balance Transfer program, benchmarking three approaches — Meta Learners,

Uplift Trees, and Outcome Transformation — against existing response model; best model showed a 10%+ lift over existing response model.

- Developed credit risk models for the card portfolio using XGBoost, supporting portfolio management strategies that informed credit line and retention decisions across 40MM cardholders.
- Ensured sustained model health across Card portfolio models by establishing monitoring frameworks and leading quarterly business reviews, enabling proactive retraining decisions that prevented model degradation in production.

PRINCIPAL DATA SCIENTIST, CARD ACQUISITION ANALYTICS

Sep 2019 – Sep 2020

Conducted an in-depth analysis of Google DCM Impression data, profiled prospects across different publishers, and developed a pioneering view of traffic flow among publishers, leading to a better understanding of user behaviors.

- Built an attribution model using Markov Chain; model results combined with a DMA test informed a CPA negotiation with a key publisher, resulting in \$200K annual savings.
- Identified and assisted in the remediation of an internal product billing issue that caused over \$1MM overpayment.
- Managed funnel performance tracking for Affiliates channel to drive card acquisitions.
- Developed an in-depth analysis of how customers' first transaction behavior had evolved under the pandemic.

W.W. GRAINGER

Lake Forest, IL

SENIOR DATA SCIENTIST

Jun 2015 – Sep 2019

Delivered a first comprehensive point of view on key drivers of seller performance through a regression model; proposed actions to improve seller performance based on model results.

- Trained ML models using various algorithms (Random Forest, XGBoost, etc.) to predict customers' risk level; model outputs leveraged by Sales to improve customer retention.
- Pioneered seller effectiveness modeling by combining NLP-derived activity insights from Salesforce with demographic and performance data, enabling Sales leadership to identify coaching gaps and redesign training strategies.
- Set up an automated audience selection process in R Server on Hadoop that could accommodate most DM campaigns; reduced modeling turnaround time by ~30% while improving the prediction accuracy.
- Measured ROI of Marketing and Sales investments, using A/B testing and observational methods (PSM, DiD, etc.).

TECH SKILLS

- Languages & Tools: Python, SQL, SAS, R, Spark, Git, Snowflake, Tableau, Looker, Airflow, Cursor, Docker, FastAPI
- ML & Experimentation: scikit-learn, XGBoost, Tensorflow/Keras, PyTorch, H2O, A/B testing, Causal Inference, LLM, Uplift Modeling, SageMaker, Lambda

EDUCATION

MS Industrial and Systems Engineering

Lehigh University, Bethlehem, PA

BS Industrial Engineering

Nanjing University of Aeronautics and Astronautics, Nanjing, China