SIYING (ELLIE) YANG

Cambridge, MA

617-821-9334 | ellie.yang02siying@gmail.com | Expected Graduation: August 2025

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SLOAN SCHOOL OF MANAGEMENT Cambridge, MA

Candidate for Master of Business Analytics(MBAn), Operations Research Center, August 2025 2024 - Present
- Coursework: Machine Learning, Optimization, Marketing and Product Analytics, Real-Time Analytics, Generative AI
- *ML Project:* Developed a multi-modal stacking model to enhance demand prediction in online marketplaces; integrated enriched feature sets by extracting text embeddings using TF-IDF, SpaCy, FastText and image embeddings using ResNet50

TSINGHUA UNIVERSITY Beijing, China

Double Major: Bachelor of Science in Mathematics and Physics, Bachelor of Engineering in Energy 2020 - 2024
- Academic: 3.86 / 4.0 GPA, Academic Excellence Scholarship (top 5%)
- Leadership: President of Student Union's Learning Department; organized 20 events for 1300 students

TECHNICAL SKILLS

- Python, R, SQL, Julia, C++, MATLAB, Tableau, Power BI, ThinkCell, SPSS, LaTeX, ArcGIS, Google Analytics
- Natural Language Processing, Computer Vision, Time Series Analysis, Forecasting, Classification, Data Visualization, Multi-Modality, Optimization, Experimentation (A/B testing), Statistical and Causal Inference, Customer Analysis

EXPERIENCE

MIT SLOAN / THERMO FISHER SCIENTIFIC Cambridge, MA

Capstone Project, RESOURCEit - Resourcing Intelligence Feb 2025 - Present
- Develop global clinical development resourcing estimator for an entire drug candidate portfolio using predictive modeling
- Combine internal clinical study performance data with external trial intelligence data to optimize resource allocation

MIT SLOAN / THE CAMPBELL'S COMPANY Cambridge, MA

Gen-AI Lab, Elevate Retail Media Performance to improve consumer experience in eCommerce Channel Feb 2025- Present
- Create an AI personal assistant for Amazon stakeholders to support growth through new sales or margin improvements
- Leverage LLMs and predictive analytics to analyze competitor impact and ad performance; design optimal budget allocation

MIT SLOAN / MASSMUTUAL Cambridge, MA

Analytics Lab, Customer Site Navigation Fall 2024
- Cleaned over 2M data for observed customer website journey path data and finished feature engineering
- Applied K-means algorithm to identify 3 distinct customer groups; used Optimal Classification Tree (OCT) and LIME to interpret clustering results; guided journey orchestration strategies and presented to Head of Marketing Team
- Optimized product-specific journey paths through counterfactual analysis; fine-tuned a RoBERTa-based NLP neural network to extract sequential path embeddings and identify high-conversion pathways; increased conversion by 1.5x and ROI by $7M

POIZON *(Leading Chinese e-commerce Gen Z platform)* Shanghai, China

Data Scientist Intern (Python, SQL, Tableau) Summer 2023
- Queried 100M data with SQL; developed performance metrics framework, including conversion efficiency and customer satisfaction metrics; established data standards and SOPs for product team
- Segmented customer using K-means clustering and purchase behavior model; generated customer analysis report discussing characteristics of different groups and purchasing routes; guided product design for each group
- Performed A/B testing, attribution and funnel analysis; implemented App page redesign strategies; increased CTR by 15%, lifted UV value by 0.5%, and boosted NPS by 13%; developed Tableau dashboard and presented to Head of Product Team

OLIVER WYMAN Beijing, China

Analyst, Part-Time Assistant (Python) Spring 2023
- Enhanced risk measurement for a bank by developing predictive warning models with LSTM and XGBoost; engineered 120 features and conducted feature selection through SFA, permutation and business relevance
- Forecasted volatility of 10 interest rates over 3, 5, and 10 years; attained low average missing rate of 4%
- Enhanced model interpretability by analyzing historical trends of key predictive factors; created client-facing presentation

SHANGHAI J. ROYAL ASSET MANAGEMENT CO., LTD Shanghai, China

Quantitative Research Intern (Python) Summer 2022
- Built LightGBM classification model to predict stock prices 3 ticks ahead, achieving out-of-sample precision of over 90%; generated trading signals and crafted high frequency T+0 trading strategy, with commission considered
- Designed automated back-test programs to execute trades based on predictions and strategy; visualized trading process including signals and returns; executed 20-day back-tests on 102 stocks, and 86 yielded positive returns