Xuefang ZHAO

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Education

Nankai University (NKU) Sep 2016 – Jun 2018

*Master of Engineering in Control Engineering (**GPA:** 3.56 / 4.00, **Rank:** 1 / 47)* *Tianjin, China*

- **A+ Courses:** Frontiers of Control Theory, Linear Systems Theory, Control Engineering, Intelligent Predictive Control, Fuzzy Systems and Control

North China University of Science and Technology Sep 2011 – Jun 2015

*Bachelor of Engineering in Electrical Engineering and Automation (**GPA:** 3.76 / 4.00, **Rank:** 1 / 400+)* *Tangshan, China*

- **A+ Courses:** Advanced Mathematics, Linear Algebra, Probability and Statistics, Signals and Systems, Automatic Control Principle, Complex Function and Integral Transformation, Fundamentals of Digital Electronics, Programmable Controllers, University Physics, Electrical Control Technology, Power System Analysis, Power Electronics Technology, etc

Working Experience

Meitu (www.meitu.com) Jun 2019 - Present

Senior Data Mining Engineer, Intelligence Department, User Profile Group (Mentors: Yan Meng, Zhao Yang) *Beijing, China*

- Areas: Big Data, Machine Learning, Deep Learning, Data Mining, Consumer Data Platform.
- Developed, optimized, maintained labels for the CDP system; supported business teams such as brand marketing team, Meitu membership team, financial risk control team, Meitu design studio team, etc.

Meituan (www.meituan.com) Jun 2018 – May 2019

Business Analyst, Hotel and Travel Department, User Growth Group (Mentors: Juan Yin, Hui Chen) *Beijing, China*

- Areas: User Growth, Business Analytics, Data Mining, Machine Learning, Hotel Tag Management Platform.
- Mined, optimized, automated hotel tags in different scenarios; developed the must-stay list for Meituan and Dianping APP.

Projects

Meitu User Age Stage Prediction Model | *Python, SQL, Shell, Spark, Scala* Mar 2023 - Present

- **V1 version:** Established LR and random forest models to predict the age stage of Meitu users based on the user's portrait label, community consumption behavior, tool click behavior and other features, with a model accuracy of 45% and then established a stacking model of LR, random forest, and xgboost, and the model accuracy increased to 50%.
- **V2 version:** Segmented the words, filtered out special characters and stop words, calculated the TF-IDF value to vectorize the features based on the text information of users in the Xiuxiu community, used the chi-square test for feature selection, and established the Spark MLP model to predict the age stage of Meitu users and the model accuracy was 52%.
- **V3 version:** Established a decision tree model to predict the age stage of Meitu users based on the user's portrait label, tool click behavior, community consumption behavior and other features, with a model accuracy of 60% and added the user's date type preference and user time period preference based on the previous features to establish the lightgbm model, and the model accuracy was increased to 66%.

Meitu Commercial Crowd Mining and Expansion | *Python, SQL, Shell* Sep 2020 - Jun 2024

- Used user portrait data to help brand marketing teams sign advertising orders, obtaining high advertising revenue.
- Deeply explored commercial populations, applied TGI, Jaccard similarity, simhash, and look-alike algorithms in sequence to expand the number of commercial populations, and conducted targeted advertising.
- Applied large language models to build an intelligent marketing label framework and automatically generated commercial population labels.

Meitu Membership System | *Python, SQL, Shell, Spark, Scala* Jan 2022 - Dec 2023

- Developed labels for different Meitu apps based on the membership business logic, including membership status, member payment method, member life cycle, member price sensitivity, member level, member AIPL, etc.
- Based on different business attributes, established a lightgbm model to predict labels such as potential members, churned members, and repurchase members of different Meitu apps.
- Based on the membership label system constructed above, Meitu's membership business can carry out activities such as member student discounts, obtaining high membership income.

User Hierarchical System | *Python, SQL, Shell* Oct 2019 - Apr 2022

- Developed labels based on business logic and algorithm models, such as user life cycle, user activity stratification, user date type preference, user time period preference, and user churn probability prediction for different Meitu apps.
- The active hierarchical labels of Xiuxiu community users were applied to push, and the CTR increased by 4.767%. The date type preference and time period preference features were applied to user age prediction, and the accuracy rate increased from 60% to 66%.

Meituan Hotel and Travel Must-stay List Project | *Python, SQL* Jan 2019 - Aug 2019

- Set the entry threshold based on the hotel's basic attributes and user-level information and selected higher-quality hotels to enter the listing period and then respectively established the city list and national feature list during the entry and listing periods.
- Found important features based on factor analysis method and implemented a hotel rating model based on Wilson score ranking algorithm and hierarchical analysis method, selecting hotels in the entry period and the listing period according to the ratings.
- The must-stay list was eventually launched on the hotel channels of Meituan and Dianping App and the traffic of the hotels on the list has increased significantly compared to before the list was released and the dissemination of the list has also increased the willingness of high-end hotels to cooperate with Meituan Hotels.

Meituan Hotel and Travel Scenario Label Project | *Python, SQL* Sep 2018 - Apr 2019

- Established models to mine hotel tags based on different scenarios, and iterated and optimized tags based on business logic.
- Built an automated hotel tag mining system, including tag selection, development, launch, optimization and effect evaluation processes.
- Created a scenario-based label data reporting system, including search function, filter function and other dimensional reports.
- The visit-to-purchase rate of purely newly added tags such as Sea View Room and Ancient Town Stroll increased by an average of 3% compared with the overall market and the visit-to-purchase rate of optimized tags such as Couple Dating and Riverside increased by 1% and the paid room nights of the Couple Dating tag increased by 957 per week.

Patent

Method and system for predicting box-office performance of movies on basis of neural network algorithms Sep 2016 - Jun 2018

Advisor: Prof. Jianlei Zhang

Awards

Meitu Data Intelligence Department Annual Star (**5 holders among 100+ employees**)	Jan 2022
Nankai University Graduate Scholarship	June 2018
Outstanding Graduates of Hebei Province's Universities (**Top 1%**)	May 2015
Three Good Students of Light Industry College of North China University of Technology (**3 times**)	Sep 2011 - Apr 2015
University First Prize Scholarship (**6 times**) (**Top 5%**)	Sep 2011 - Apr 2015
National Scholarship (**1 holder among 400+ students**)	Nov 2012

Mathematics Competition Honors

Special Prize in the National Risk Control and Management Capacity Challenge Competition for Chinese Universities	Sep 2017
Second Prize in the Preliminary Round of the 6th National College Students Mathematics Competition	Nov 2014
First prize in the Hebei Provincial Undergraduate Mathematics Contest (**twice**) (**Top 5%**)	Oct 2014
Honorable mention of the 2014 Mathematical Contest In Modeling	Apr 2014
Third prize of the 2014 Asia Pacific Mathematical Contest In Modeling	Mar 2014
First Prize in the 6th Mathematics Competition of the Light Industry College of North China University of Technology	Nov 2012

Technical Skills

Programming Languages: Python, SQL, Scala, Shell, MATLAB, C#, C

Tools: PyTorch, Spark, Linux, GitHub, SPSS

Skills Certificates: Network Engineer Certification, Microsoft Excel Certification, Advanced Maintenance Electrician Certification