

Binghui Lai

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EDUCATION

NORTHEASTERN UNIVERSITY

Master of Science in Data Analytics Engineering

- Courses: Data Mining, Database Management, Statistics, Machine Learning, Visualization.
- Current GPA: 3.87/4.0.

Boston, MA
Expected May 2023

SHENZHEN UNIVERSITY

Bachelor of Science in Traffic Engineering

- Represented the Financial Association as a sponsor negotiator to find sponsorship.

Shenzhen, China
June 2019

WORK EXPERIENCE

BYTEDANCE

Game Publishing Operation Intern (Data Analytics Track)

Shenzhen, China
December 2020 - July 2021

- Perform data manipulation for multiple projects including Lightracer: Ignition, Cooking Voyage: Cook & Travel, etc. Wrote **200+ queries on SQL** to satisfy various requirements on large-scale datasets.
- Conducted **CPI (Cost Per Install) test** for over 100 mobile games in multiple regions including England, United States, Japan. Applied retention analysis, material analysis etc. on test results, discovering more than 10 potential profitable projects.
- **Redesigned regression model for predicting ROAS (Return On Ads Spending)** with Scikit-Learn on **Python** to guide user acquisition campaigns and maximize projects' ROI. Reduce cost for more than 10 upcoming projects.
- **Developed automated dashboards** for descriptive analysis with SQL and created report templates for different contexts, reducing 40% reporting time. Applied weekly descriptive analysis for over 10 projects to keep tracking the performance.
- Optimized performance of Ollie's Manor. **Improved ROI to 1.3 from 0.8**, continuously contributing to revenue.
 - Applied **Diagnostics Analysis** with Incentive Ads CTR, churn rate and other metrics to target the reason for poor performance and eventually reduced churn rate by 8%, increased ads revenue by 10% after optimization.
 - Planned, executed logo **A/B test** to fit the various compositions of players in different countries. The new logo in Japan based on the test results resulted in a **growth of CTR by 13%** in the App Store during the 2nd version test.

OPPO

Product Manager Intern in IOT

Shenzhen, China
October 2020 - December 2020

- Created auto dashboards with SQL to optimize product information updates of OPPO TV R1 and to monitor daily key metrics.
- Involved in designing and developing the **ETL process** with SQL to optimize the data access procedure.

SKILLS

- Programming: Python(Numpy, Pandas, Sklearn etc.), R, SQL, Hadoop, Spark
- Software: Microsoft Excel, Tableau, Neo4J

ACADEMIC PROJECTS

TELCO CUSTOMER CHURN PREDICTION

Boston, MA
December 2021 - December 2021

- Conducted **Exploratory Analysis** with seaborn to better understand dataset. Figuring out the relationship between features.
- Cleaned data with pandas on python, applied PCA and SMOTE oversampling method to preprocess the dataset.
- Established KNN, Logistic Regression and other **machine learning models** in jupyter notebook to predict churn with AUC of 0.85.
- Evaluated the performance with ROC, Lift Chart and Calibration Curve to choose the best fitted model for this case.

PATTERN PREDICTION FOR ALIGN CUSTOMIZATION

Boston, MA
January 2022 - February 2022

- Cleaned, transformed dataset and applied **Feature Engineering** based on EDA. Filled null value with interpolate calculation to enhance the dataset quality. Oversampled the imbalance dataset for modeling.
- Predicted target value with random forest. Optimized the model with multiple rounds **Grid Search** to find the best parameters. Increased Accuracy by 5%. The AUC was increased to 0.89.