

# Qiaochu Chen

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## PROFESSIONAL EXPERIENCE

### NTT DATA, Inc.

Data Scientist

Tokyo, Japan

April 2019 - Present

#### • Mobile App Optimization

- Optimized push notification algorithm, designed and performed A/B test analysis to evaluate the optimization, which resulted in a 2% increase in average push notification open rate. (Python)
- Defined metrics for measuring user engagement, and performed historical analysis on large-scale user activity logs to understand user behavior and trends. (Python, SQL)
- Performed feature engineering, built predictive models using *DataRobot* (an enterprise AI platform) to find factors and features that correlated to high retention rate, and provided findings and strategies. (Python)
- Performed ad-hoc analysis, and presented weekly reports to senior management with findings and requested propositions.
- Built customized dashboards using Tableau, from which the cross-functional team members can effectively act upon.

#### • Sales Forecasting

- Performed data extraction/manipulation and created original sales dataset. (Python, SQL)
- Performed historical analysis on product sales data, reported market trends and relevant insights. (Python)
- Built predictive models to forecast monthly sales of 300+ products using *DataRobot* and increased accuracy (RMSE) by 12%.

#### • Metric Design for Risk Management

- Performed exploratory analysis on time series data to understand different manufacturing processes and risks. (Python)
- Defined 20+ metrics for different manufacturing scenarios to identify and quantify potential risks.
- Transformed results of analysis into reports, provided insights and strategies for risk management optimization.

#### • Customer Targeting Optimization

- Increased purchases by 16% by building predictive models using XGBoost to predict the likelihood that a customer would make a purchase, so to select customers for further approach. (Python)
- Performed analysis on large-scale sales datasets, and presented data-informed insights and recommendations to senior leadership about customer targeting and marketing. (Python)

## EDUCATION

### University of Tokyo, School of Engineering

Master's in Systems Engineering

Tokyo, Japan

September 2016 – August 2018

**Relevant Coursework:** Machine Learning, Probability & Statistics, Pattern Recognition, Linear Algebra

### Tongji University, College of Electronic and Information Engineering

Bachelor's in Electrical Engineering

Shanghai, China

September 2011 – August 2015

## SKILLS

**Programming:** Python (NumPy/Pandas/Scikit-learn/Matplotlib/Seaborn), SQL, C#, R, HTML, CSS, Java

**Machine Learning:** Regression & Classification Methods (Linear/Logistic Regression, Tree-based Models, KNN, SVM), Clustering Methods (K-means/Hierarchical Clustering), Regularization, Resampling (Bootstrap/Cross-Validation)

**Data Science:** A/B Testing, ETL, Data Science Pipeline (Cleaning/Wrangling/Visualization/Modeling/Interpretation), Statistics, Time Series, Metric Design, Experimental Design, Hypothesis Testing, APIs, Git

**Cloud & BI Tools:** AWS, Tableau, Google Analytics, Alteryx

## PROJECTS

#### • Fish Image Classifier

- Built an underwater drone with a fish-eye camera to collect images of tunas in fish cages.
- Performed image pre-processing/augmentation to create 5000+ tuna images for model training. (Python)
- Built a fish image classifier using OpenCV for recognizing tunas with 87% accuracy, aiming to help fishermen count tunas in fish cages in real-time and estimate profit before harvest. (Python)

#### • Unmanned Solar-Boat

- Led a team of 7 members to design, manufacture, and test an autonomous boat powered by solar cells, and run for the 20 km-course between Makino Sunny Beach and Chikubu Island.
- Ranked 2nd out of 12 teams in the 22nd Unmanned Solar-Boat Race at Biwa-lake.

## INTERESTS

**Languages:** Mandarin (Native), Japanese (fluent), English (fluent)

**Activities:** Game Development, Pixel Art, Ukulele, Fitness, Badminton, Hiking/Mountain-climbing