# Liu Mingchang

## **Analyst - Revenue Management Solutions**

- Email me on Indeed: http://www.indeed.com/r/Liu-Mingchang/3ec315814fa93117

## Work Experience

## **Analyst**

Revenue Management Solutions

April 2018 to Present

Develop and deploy web scrapers using software such as BeautifulSoup, Selenium, and Requests in Python to collect external data. Fully automate data collecting and cleaning processes using Python and Microsoft SQL

Server. Create and maintain the database/tables that host all the external data.

• Data cleaning and maintenance of data integrity on a regular basis in SQL Server. Discover, investigate and resolve

any data issues if required.

- Conduct data analysis and research based on client's requests and business questions. Work closely with clients and help them with their concerns and questions about their businesses.
- Improve current time series forecasting model.

#### **Data Scientist Intern**

K Wizdom (Optimate)

September 2017 to February 2018

By using R programming language and Python, investigated behaviors of ad users and advertisers and discover the dynamic changes and patterns of related factors such as the cost, average position, and bidding price of advertising

campaign keywords

- Developed dynamic and automated algorithms and strategies that optimize the performance while minimizing the cost of advertising campaigns on Google AdWords using Python
- $\bullet$  The algorithm and strategies have improved the overall performance of advertising campaign on Google AdWords by 70% 80%

#### **Data Analyst Intern**

Witmart

May 2017 to August 2017

Retrieved data from the database and compiled multiple datasets using SQL and R programming language on a

regular basis to assist the Business Analytics team and the marketing team

- Produced traffic monitoring report for the Management on a daily basis using Microsoft Excel
- Assisted in cleaning data and building algorithms to produce semi-annual revenue report for the management using

SQL, R and Microsoft Excel

• Prepared and processed raw datasets on a daily basis using SQL and R to support product development teams,

market

## Education

#### **Master of Science in Statistics**

National University of Singapore August 2018 to Present

## Bachelor of Science in Statistics

National University of Singapore

August 2014 to June 2018

## Skills

STATISTICS (2 years), PYTHON (2 years), SQL (1 year), MS SQL SERVER (1 year), SQL SERVER (1 year)

## Additional Information

#### PRIMARY TECHNICAL SKILLS

- Microsoft SQL Server: extensively used at work; 1+ years of experience.
- Python: extensively used at work; 2+ years of experience.
- R: extensively used in graduate/undergraduate studies; 4+ years of experience.
- Keras/TensorFlow: built basic neural nets in deep learning courses/data science challenges; 1year experience.
- PyTorch: built basic neural nets in data science challenges; less than 1 year experience
- Statistics: holding a bachelor's degree in Statistics, currently pursuing master's degree in Statistics
- Machine learning/deep learning: various courses taken; basic concepts applied in graduate/ undergraduate studies

and data science challenges

• Other Python packages with 1+ years of experience: requests, selenium, BeautifulSoup, scikit-learn, pandas,

numpy

#### QUALIFICATIONS/CERTIFICATIONS

- Neural Networks and Deep Learning (Coursera, May 2018)
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization (Coursera, May 2018)
- Structuring Machine Learning Projects (Coursera, Jun 2018)
- Sequence Models (Coursera, Jun 2018)
- Convolutional Neural Networks (Coursera, Jun 2018)
- Machine Learning Foundations: A Case Study Approach (Coursera, Aug 2018)
- Machine Learning: Regression (Coursera, Sep 2018)
- Probabilistic Graphical Models 1: Representation (Coursera, Jan 2019)
- Probabilistic Graphical Models 2: Inference (Coursera, Jun 2019)