## XINRAN XU

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#### **SUMMARY**

Business analyst proficient in MySQL, RStudio, Python and Tableau. 1-year experience helping companies enrich their data by optimizing forecast model. I helped company build an optimization model and it was finally achieved to improve transportation efficiency by 10% and reduce inventory holdings by more than \$3000.

#### **EDUCATION**

SIMON BUSINESS SCHOOL, University of Rochester – Rochester, NY Master of Science in Business Analytics (A STEM-Certified Program) Clubs: Simon Data Analytics Club, Simon Pricing Club

December 2020 (Available for full time job in May)

Available for full time job in May,

# FISHER BUSINESS SCHOOL, The Ohio State University – Columbus, OH Bachelor of Science in Business Administration – Supply Chain Management

May 2018

Awarded Dean's List – Three semesters

Clubs: VTravel – Human Resource Manager; ISS – Member

#### **ANALYTICS PROJECTS**

#### BUSINESS ANALYTICS PROJECT- SENECA PARK ZOO USING R & ARCGIS

Jan 2020 - May 2020

- Used R to Cleanse forestation data from 2010 to 2018 that donors in Seneca Park Zoo planted and recommend the optimal model with logistics regression method to predict tree survival rate with accuracy of 73%.
- Linked data in Tableau to plot the graphs that 4.2% of Madagascar's tree cover loss was caused by deforestation, 83% of deforestation was resulted by agricultural practices, and fire has destroyed over 42,000 acres of forests.
- Conducted descriptive analysis and generated ideal plantation sites considering weather and vegetation in ArcGIS
- Built SWOT analysis to maximize reforestation effort, interact with donors, and market our initiatives to spread awareness in protecting our ecosystem.

## MARKETING ANALYTICS – TOY HORSE CONJOINT EXPERIMENT USING R Jan 2020 – Feb 202

- Analyzed a survey over 200 children's preferences on toy horse, based on toy's price, height, motion and style.
- Used regression to estimate the conjoint model at the individual level and justified benefit segmentation via 3 clusters of conjoint part-utilities.
- Conducted a priori segmentation using the variables gender and age to profile the ideal products for segments.
- Built market simulation in R and used disaggregate analysis with a first-choice rule to forecast market shares.
- Adjusted product line and maximized profit with \$144,073 as well as profitability ratio with 45.76%.

## PREDICTIVE MODEL – ASSESS CREDIT RISK USING PYTHON & INTERFACE Oct 2019 – Dec 2019

- Analyzed over 10,000 applicants' information with home equity line while targeting at variable 'Risk Performance' and used standard scaler function in Python to cleanse data.
- Built and compared models between KNN, Random Forest, Support Vector Machine and Logistics Regression which resulted in 72.02% accuracy in logistics regression model.
- Developed a running prototype of a graphic interactive interface for all predictive models to sales representatives in the credit card company to make decision on accepting or rejecting applications.

## TEXT CLASSIFICATION OF AIRLINES' COMMENTS ON TWITTER USING R Oct 2019 – Dec 2019

- Applied Bing Liu's Opinion Lexicon to count appearance of positive and negative words through training dataset over 4,500 tweets and created a word cloud in R.
- Classified tweets using Naïve Bayes method and represented all the tweets as corpus to get 2,110 positive predicted tweets.
- Counted positive and negative words of each tweet using R and classified into complaint and noncompliant tweets.
- Summarized 157 non-negative tweets and achieved the precision of 80.89% under machine learning models.

#### PROFESSIONAL EXPERIENCE

## **THE WRIGHT STAR LLC.** – Rochester, NY, United States **Data Analyst (Intern)**

Apr 2020 – Present

Designed price forecast model and improved resources matching accuracy on housing rental with customer preferences.

- Created revenue forecasting model for Alibaba company, and predicted revenue increasing rate with 17.64% in the year 2020.
- Crawled 850 sets of data on Investing.com with Python, updated daily closing price and daily increasing rate for 9 segments in S&P 500 within 5 months and saved files in Excel.
- Crawled 120,000 sets of rental price in 84 regions in Rochester area on Zillow.com with Python, built predictive model and ran regression to analyze price trends as well as influencing factors, obtained results that in 2020, the growth rate of house prices in Rochester is 0.3%, the rental price growth rate is 0.74%, the average rental price is 1,413.4 dollars, and the average house selling price is 159,265.3 dollars.

• Conducted models in R to visualize data and combined tenants' preferences to provide best-matched housing advertisements.

## SEA-AIR LOGISTICS, LIMITED – Foshan, Guangdong, China

## IT Information Department, Data Analyst (Intern)

Created in-house price and demand forecast tool to improve accuracy and reduce costs.

- Redesigned import and export processes; ran queries in SQL and Microsoft Access by importing various datasets to analyze the procurement performance and ensure maintenance of customs compliance, resulted in a 30% reduction in duty costs.
- Analyzed inbound domestic and international transportation trends, resulting in reduction of inventory holding costs by \$3,000.
- Assisted the senior team to design and implement cloud solution for demand forecast models to ensure response time, warehouse order arrivals and departures met customer expectations.
- Conducted qualitative data analysis based on 150 monthly surveys related to market demand for products, product awareness in Guangzhou district, which improved transport efficiency by 10%.

## SINOPHARM GROUP CO., LTD. – Wuhan, Hubei, China

May 2017 – June 2017

June 2018 - Sept 2018

## **Logistics Center, Logistics Data Analyst (Intern)**

Collaborated with operations team to optimize transportation flow and save costs.

- Assisted in optimizing standard operating procedures of a logistics center and supported supply systems implementation, saving \$145,000 through inventory balancing.
- Played a key role in developing analytical models that decreased transportation costs by 5% in transport areas within specific carrier constraints.
- Participated in collecting and analyzing warehouse business, product quality information, and unified various statistical reports, aiming to provide accurate information for senior managers to help them in decision making.

#### **SKILLS & INTERESTS**

- Technology Skills: R, Python, Tableau, MySQL, ArcGIS; MS Office Suite (Excel, Word, Access).
- Analytical Modeling: SVM, Clustering, Tree-based methods, PageRank, Conjoint Analysis, Market Simulation
- Volunteer Work: Conservancy for Cuyahoga Valley Nation Park (2016), Culture Exchange Visiting Tour (2017).
- Languages: Mandarin (native speaker); English (business proficient)