

# ZHUORAN PAN

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## EDUCATION

**Honours Bachelor of Science**

Sep 2016-Jun 2020

**University of Toronto**, St. George, Toronto, ON

Double Major in **Statistics & Economics**, Minor in **Mathematics**

## WORK EXPERIENCE

**Data Analyst Intern**, E-commerce Department, Misumi Group Inc., Shanghai, China Jun 2019-Aug 2019

- Collaborated with Business Intelligence/Data Governance team to build and extract appropriate and accurate data sources in **SQL** to support the department's reporting and analytical needs
- Utilized Google Analytics combined with various machine learning models to analyze and propose actionable strategies regarding website traffic data and consumer trends
- Developed a data pipeline using **Python** to scrape data from Google Analytics, load data into PostgreSQL databases for querying, and automate the daily reports in Excel-based templates, reducing time consumption by 95%
- Wrote 16 ad hoc automated scripts using **Excel VBA Macro/Python** to increase efficiency and improve the accuracy of internal processes thus eliminating a vast number of operational errors
- Created interactive **Tableau** dashboards to track KPIs, visualize trends and highlight abnormal patterns

**Data Analyst Intern**, Marketing Department, Intco Medical, Toronto, ON Jun 2018-Aug 2018

- Worked in a cross-functional team to provide strategic market insights for senior executives, maintaining sources of truth data and dashboards to help drive quantitatively informed and evidence-based business decisions
- Analyzed sales data through Salesforce.com, and summarized findings using BI tools (**Tableau** and **Excel**) to generate daily, weekly and monthly reports that improved customer retention as well as strengthened internal analytical abilities
- Built predictive models using **Python** to forecast customer session conversion behavior, suggested SEM strategies based on the best model and quantified monetary effect
- Translated the business requirements into **SAS / SQL** codes to obtain timely deployment of direct marketing campaigns

## PROJECT EXPERIENCE

**Data Analyst**, Kaggle Prediction Competition-M5 Forecasting Apr 2020-Jun 2020

- Applied knowledge and skills in data analytics and machine learning algorithms to predict itemized sales at Walmart for over 3,000 products in 10 store locations over two 28-day periods
- Decomposed and segmented the sales data (> 1 million lines) by performing exploratory data analysis as well as feature engineering
- Estimated each item's sales by building a light gradient boosting machine in **Python** and improved the model accuracy through model training, cross validation, and parameter adjustments

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**Analyst**, Case Study: Analyzing Confounding Factors of Teenager Smoking Nov 2018-Dec 2018

- Performed distribution analysis to the data set using **R** and implemented data visualization using **R ggplot** to investigate the correlation between the key demographic characteristics and the output (possibility for a teenager to smoke)
- Tested on different generalized linear regression models and selected the best performed logistic regression model in terms of adjusted R-squared score
- Constructed the logistic regression model, presented ANOVA diagnosis analysis based on the estimated parameters and further examined the appropriateness of the model
- Interpreted the model results, drew statistical inferences, and summarized in report using **RMarkdown**

## EXTRACURRICULAR ACTIVITIES

**Participant**, 2020 Electronic Undergraduate Statistics Research Conference, ASA Nov 2020

- Watched academic presentations by winners of Undergraduate Statistics Project Competition
- Joined the panel discussion about careers in statistics & data science industry and government
- Acquired valuable information of succeeding in graduate school study and future career path

**Member**, Independent Summer Statistics Community, University of Toronto Apr 2020-Now

- Participated actively in the weekly workshops focusing on the study and application of **GitHub**, data visualization, web scraping, **Shiny** dashboards, etc.

**Member**, Machine Intelligence Student Team, University of Toronto Sep 2018-Sep 2020

- Explored and applied the algorithms of machine intelligence to real-world scenarios, participated in project-based workshops and events on the influence of machine learning and data science in real life
- Attended monthly meetings to discuss research into the latest machine learning techniques and to apply them to emerging applications

**Volunteer**, Accessibility Services, University of Toronto Sep 2017-Sep 2018

- Listened to class discussions attentively, took lecture notes, and shared notes with approximately 13 students with disabilities taking the course

## PROFESSIONAL TRAINING & CERTIFICATION

- **Machine Learning** online course by Stanford University via Coursera (In progress)
- **AWS** Certified Data Analytics – Specialty (In progress)
- **Google Analytics** Individual Qualification (In progress)
- Microsoft Office Specialist: **Excel** Associate (In progress)
- **SAS** Certified Base and Advanced Programmer for SAS 9 (2019)

## SKILLS

- Programming: **SQL**, **Python**, **R**, **SAS**, HTML, JavaScript, MATLAB
- Tools: PostgreSQL, SQL Server, Salesforce, Google Analytics, **Tableau**, Excel, Access, AWS, Github
- Skills: **Statistical Analysis**, **Data Visualization**, **Data Modelling**, Dashboarding, A/B Testing