


# Oliver K. Pan

github.com/oliverkpan 

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## SKILLS

**Programming Languages:** Python, SQL, HTML, CSS, JavaScript (NodeJS, ReactJS), Java, R

**Data Science:** pandas, numpy, seaborn, matplotlib, plotly, Jupyter Notebook, FBProphet

**Machine Learning:** scikit-learn, Keras, Tensorflow, PyTorch

**Software Tools:** Microsoft Excel, Tableau, Git, Github, Visual Studio

## WORK EXPERIENCE

**Data Management Operations Intern, Ontario Teachers' Pension Plan**

09/20 - 12/20

- Manages ETL process, using applications such as SQL, Bloomberg, and Oracle EDQ for data valuation.
- Constructed automated Python checks, notifying cross-functional teams of data exceptions through email notifications.
- Creates and manages scripts, accessing large databases utilizing Python and implementing reports using pandas.

**Data Scientist Intern, Royal Canin/Mars Inc.**

06/20 - 08/20

- Filtered 300,000 consumer purchases, by building machine learning models such as Random Forest and identifying key features using SHAP to predict consumer sign-up to subscription service, identifying actionable insights which resulted in company investment of \$30,000 into marketing activities.
- Identified key promotions from four years of historic data, carrying out A/B tests to analyze effect of promotions on service subscription, presenting results to cross-functional teams and generating \$100,000 investment in future promotions.
- Assisted veterinarians in quick diagnosis of urolith stones by analyzing 60,000 submissions, deploying web application using Streamlit from CatBoost model, and conducting cross-validation for accuracy of 90% F1 Score.
- Analyzed over three million transactions, identifying 1800+ key clinics using label propagation and gradient boosted trees, leading to a potential 250% growth on e-commerce platform.

**Data Analyst Intern, CardSwap Inc.**

09/19 - 12/19

- Increased transaction processing speed by 25%, successfully identifying and analyzing the data of over 500+ customers, which resulted in business transactions of over \$4000 daily.

**Undergraduate Teaching Assistant, University of Toronto**

09/19 - 12/19

- Corrected and assessed 60+ assignments and 70+ exams partnering with a team of eight teaching assistants to support a course (MGTA05 - Foundations of Business Management) with a class size of 300+ students.

## EDUCATION

**Honours Bachelor of Science (HBS) - Statistics, University of Toronto**

2018-2023

**Bachelor of Business Administration (BBA) - Business Management, University of Toronto**

2018-2023

- **Quantitative Coursework:** Calculus (Management & Physical Sciences), Linear Algebra, Quantitative Methods for Economics (Statistics), Computer Science, Microeconomics, Price Theory, Corporate Finance

## PROJECTS

**House Price Prediction with Advanced Regression**

- Predicted house prices with an accuracy of <0.05 normalized RMSE, using various regression techniques such as Logistic Regression and Booster Trees on 80+ variables, deploying final model with Streamlit & Heroku.

**Yelp Open Dataset**

- Performed analysis on COVID-19 data, creating unsupervised machine learning model (K-means) to analyze over 200,000+ businesses and response to pandemic.

**US Traffic Time Series Analysis**

- Demonstrated strong exploratory data analysis on over 40+ variables, forecasting US Traffic Accidents in 2021 using statistical models such as FBProphet and ARIMA.

## AWARDS

**DECA International Finalist** - Competed in Atlanta against over 2000 students in a stock pitch, placing Top 10 globally.

**MESA Associate of the Year** - Awarded for outstanding effort during the 18/19 Year, directing an event with 300+ guests.