

# Oliver K. Pan

 oliverkpan

 oliverpan

 oliverkpan.com

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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, Tableau

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

## WORK EXPERIENCE

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

09/20 - 12/20

- Manages **ETL** process, using applications such as **MS SQL Server** 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 writing **SQL** Queries and developing reports using **pandas**.

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

06/20 - 08/20

- Filtered **300,000** consumer purchases by building machine learning models such as **Random Forest** and **XGBoost** to provide actionable insights, which resulted in company investment of **\$30,000** into marketing activities.
- Developed **A/B tests** on four years of historical data to analyze impact of promotions on subscription service, then 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 a **CatBoost** model, and conducting cross-validation for an accuracy of **90% F1 Score**.
- Analyzed over **three million** transactions, identifying **1800** animal clinics using label propagation, which impacted business performance by identifying 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 (HBSoc) - Statistics**, University of Toronto

2018 - 2023

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

2018 - 2023

- Technical Coursework: Linear Algebra, Calculus for Physical Sciences, Quantitative Methods, Computer Science (Python)

## 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, to deploy a model with **Streamlit**.

**Yelp Open Dataset**

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

**US Traffic Time Series Analysis**

- Explored time series data with over **40+** variables, forecasting US Traffic Accidents in 2021 using statistical models such as **FBProphet** and **ARIMA**.