# **Francis Tao**

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## **Professional Summary**

A diligent and ambitious professional with expertise in data analytics, passion in machine learning, exceptional communication skills and multilingual ability. A vast skill set of statistical inferences, time series analysis, predictive analysis and data visualization..

#### Skills

Database: PostgreSql, MySQL, T-SQL, SSMSStatistical Programming: Python, SAS, RStudioData Visualization: Tableau, Power BI, Matplotlib, SeabornData Analytics and Science: Pandas, Numpy, Sklearn

Others: Excel, Access, Outlook, Slack, Jira

# **Work History**

RecycleSmartRichmond, BCData Coordinator11/2021 - Present

- Pull the data from SQL Server, generate waste diversion reports monthly in Excel and give insights of recycling data based on calculations and Power BI dashboard.
- Clean and transform over 6100 rows of customers/vendors' addresses with Pandas, build Python validation tools to automate the process by utilizing CanadaPost/BingMap API, computing textual similarity using Levenshtein Distance with 74.8% accuracy, converting kmz file to json and creating region/neighborhood codes based on Polygon geospatial analysis.
- Write sql query and utilize Power Query/Power BI to transform the data and create visualizations for various projects including SmartTrash pickup predictions and Vendor invoice gap amount/difference.
- Reduce the monthly waste diversion number manual check workload by an average of 47.2% by building a Python tool and utilizing libraries such as re, pandas, dateutil.parser, datetime and calendar.
- Automate over 3000+ vendor purchase contract lines' unique key, unit price, region code and product id in Python(lambda, pandas)

 ehsAl
 Vancouver, BC

 Data Labelling Analyst
 02/2021 – 10/2021

Process EHS documents with citations, language labelling, splitting, etc.

• Develop internal QA survey, evaluate the employee performance by trending prediction based on visualization through Power BI/Excel Query, Pivot, Charts, Python Pandas, Matplotlib, Numpy, Seaborn and improve the task accuracy by 10% within 6mo.

Providence Health CareVancouver, BCData Quality Clerk01/2020 – 06/2020

- Assist end-users with registration-related processes, liaise with various departments and escalate problems.
- Extract, sort and aggregate data using SQL and verify them from client registry/clinical information reports to maintain data integrity and to ensure compliance with high accuracy of above 85%.

**ECCO Shoes Canada**Richmond, BC *Brand Ambassador*11/2019 – 10/2021

- Greet customers, help to find the wanted shoes, fix the displays and resolve the return and exchange issues.
- Generate more than \$1500 in weekly sales with successful marketing, sales and customer relations approaches.

Quest Food Exchange Vancouver, BC

Office Assistant Volunteer

05/2019 - 07/2019

Excel data entry and update referral clients' information into spreadsheet over 2800 rows for 2000+ organizations.

## **Education**

## The University of British Columbia

Vancouver, BC

Bachelor of Science, Statistics

05/2019

Dean's List 2016 – 2017; Member of Golden Key Society: Top 15% in faculty; Graduated with 82%

# **Personal Projects**

**Bike Share Demand Prediction** (Link) – 0.4075 RMSLE(301/3243 on Kaggle, top 9%); Data manipulation with pandas, numpy and datetime; Histogram, scatterplot and bars visualization with matplotlib; Modelling and training with Train\_Test\_Split, LinearRegression, RandomForestRegressor and XgBoost.

**Heart Disease Prediction** (Link) – GridSearchCV Logistic Regressoin with 88.5% accuracy; 303 rows of data; Barplot, scatterplot and heatmap by matplotlib and seaborn; Modelling and training with LogisticRegression, KNeighborsClassifier. RandomForestClassifier and DecisionTreeClassifier; Hypertuning using RandomizeSearchVC and GridSearchCV

## Certification

- (1). MCSA: SQL 2016 Database Development
- (2). Tableau Desktop Specialist
- (3). SAS Certified Specialist: Base Programming
- (4). Data Science Professional Certificate