

# Patrick Tung

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## WORK EXPERIENCE

**Data Analyst, Mobify** Vancouver, Canada 03/2020 – Present

- Performed in-depth analyses for a variety of stakeholders both for internal, across department and external customers
- Provided areas of optimization for front-end performance based on client data and industry standards.
- Explored and analyzed a wide range of data including but not limited to marketing content, industry benchmarks, to general shopper behavior on ecommerce websites.
- Developed and deployed streamline analytical processes to gain efficiencies, minimizing the time to generate insights for recurring tasks.
- Created, published, and maintained over 20+ interactive Mode reports and dashboards that provided business insights for internal and external customers to refine operational strategy and detect anomalies.
- Utilized SQL, Python, Google Analytics, and Mode Dashboards as main data analysis tools.

**Data Science Consultant, Providence Health Care** Vancouver, Canada 04/2019 – 06/2019

- Performed detailed analyses on more than 2 million rows of staffing data to assist planning for the human resource team.
- Created a time series forecast using Facebook's Prophet to predict the number of exceptions on a weekly basis for Providence Health Care. Exception are but not limited to any absences, such as sick leaves, maternity leaves, and vacations.
- Created an interactive Tableau dashboard that supported PHC's management team to track exception predictions easily.
- Explored different machine learning techniques including linear regression, logistic regression, random forests, gradient boosted trees, and KNNs to classify the severity of an existing exception. Evaluated classification models using accuracy, precision, and recall.

## PROJECTS

**Japanese Food Image Recognition, Personal Project** Vancouver, Canada 09/2019 – Present

- Created a Flask web app that allowed users to upload an image of a Japanese dish and get the name of the dish in English.
- Developed scripts to collect a total of more than 52,500 images of 105 different classic Japanese dishes.
- Trained a food image classification model using transfer learning with MobileNet on Keras and deployed the model on a web app running on an AWS EC2 instance.

**Predictive Analysis for Credit Card Defaults, Course Project** Vancouver, Canada 02/2019 – 03/2019

- Built a machine learning pipeline from preprocessing, feature engineering, and label defining to modeling, to predict the default behaviors of UC Irvine credit card clients.
- Performed cross-validation and used recursive feature elimination to select features and hyperparameters for predictions.
- Leveraged logistic regression model with L1 regularization to identify test error of around 0.17.

## EDUCATION

**University of British Columbia – Vancouver, Canada** 2019

Master of Data Science

Relevant Coursework: Data Wrangling, Data Visualization, Statistical Inference and Computation, Regression, Supervised Learning, Feature and Model Selection, Unsupervised Learning, Spatial and Temporal Models

LinkedIn Profile: <https://www.linkedin.com/in/patricktung/>

GitHub Link: <https://github.com/tungpatrick>

Grade: 94.1%

**University of British Columbia – Vancouver, Canada** 2018

Bachelor of Commerce

Dual Specialization in Accounting & Business Technology Management

Grade: 85.9%

## Summary of Qualification

- Proficient in Python, R, SQL, HTML, GitHub
- Familiar with Mode Dashboards, Spark, AWS, Data Visualization in Python and R, Data Wrangling through Python (pandas) and R (tidyverse), Machine Learning in Python (scikit-learn, keras, tensorflow), A/B Testing, Statistical Inference, Flask Web Applications
- Comfortable with working in MacOS, Windows and the command line interface
- Chinese: Fluent in reading, writing and speaking