Yoonha Kim

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Summary of Qualifications

- **Programming Languages:** R, SQL, C++, Java, Python, HTML
- **Data Science & Miscellaneous Technologies:** Data Science pipeline (cleansing, wrangling, visualization, modeling, interpretation), Statistics, Time series, Experimental design, Hypothesis testing, OOD, APIs, Excel, Git

WORK EXPERIENCE

NZTechnologies Inc – Embedded Software Developer Co-op Jan 2019 – Aug 2019

- Developed features in **C++** to improve user experience and refactored code that resulted in lower CPU power consumption and faster interaction time
- Developed interactive GUIs and other user-facing interface
- Enhanced and extended network communication routines

PROJECTS

Credit Card Fraud Detection Feb 2021

- Implemented a tool that predicts whether the credit card transaction is fraud or non-fraud using **R** and **Python**
- Exploratory data analysis is done with visualization
- Used Logistic, Ridge, Lasso Regression, and Gradient Boosting models to get the prediction; reached to Mean Absolute Error 0.0094 with Gradient Boosting model
- Developed a flaskAPI endpoint that is hosted on a local webserver. It takes in a request with a list of values from Credit Card Transaction and returns an estimation of fraud (1) or non-fraud (0)

Hotel Management System Dec 2020

- An application that allows managing hotel systems. The guest is able to make a reservation for a desired period with providing their personal information. The hotel staffs are able to access to the data and change the check-in and check-out system
- Used Angular CLI to display the application and Karma to unit tests
- Developed XML class using **Java** and **SQL**

NASDAQ Time Series Project Mar 2020

- Analyzed if COVID-19 affected NASDAQ adjusted closing price in a few facets which resulted in that is greatly affected
- Collected data from Google Finance. Looked into Time Series plots to analyze the trends. Used AR models to fit model, and Holt-Winters model to forecast using **R**

BusesAreUs Nov 2017

- An Android application that maps the location of stops, buses and bus routes on the Greater Vancouver Transit system(Translink) and retrieves real time arrival information at those stops. It also plots the user's location on the map and highlights the nearest bus stop
- Wrote JSON Parser to expect to real time information from Translink website using Translink API
- Used jUnit Test to ensure app performance and identify issues; used IntelliJ to debug and fix bugs
- Used OSMDroid, OSMBonusPack to display a map, the bus routes, and bus stops to the user
- Enhanced Object Oriented Programming such as UML class diagram and exception handling using **Java**

EDUCATION

University of British Columbia 2016 - Current

- Candidate for Bachelor of Science, 4th year Major in Statistics
- Relevant Coursework: Machine Learning, Data Science, Statistics, AI Algorithms, Programming, Probability & Discrete Mathematics
- Upper-Division Major GPA: 3.7/4.3