Titus Liu

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EDUCATION

Simon Fraser University Burnaby, Canada
Bachelor of Science in Data Science *Sep. 2017 – Jun. 2021*

EXPERIENCE

Ligter Foodprint Vancouver BC, Canada
Data Analyst *Jan 2022 - present*

- **Tableau**: Created client relation management reports using Tableau Dashboards to help inform the customer growth team on partnership expansion.
- **API Access**: Implemented a social media digital impact tracker using ChartJS and API calls from Facebook, LinkedIn, and Instagram.

Reddit Karma Point Tracker
Web Application *Jun 2021 - Sep 2021*

- **Flask**: Used Flask from Python to do an initial test built of the backend API.
- **AWS**: Deployed the tested Python script on AWS Lambda and connect it to the frontend JavaScript using AWS API Gateway. Stored the crawled data into AWS Aurora serverless database.
- **ChartJS**: Processed and delivered the data using ChartJS and vanilla JavaScript hosted on GitHub Pages.

Drug Shortage Report for Health Canada
Data Science *Jan 2021 - Apr 2021*

- **Data Warehousing**: Load and join the dataset from Drug Shortage Canada and Drug Product Database into RStudio.
- **Data Visualization**: Used libraries like GGPlot and Dplyr in R to generate multiple visualizations from transformed data.
- **Analytic Report**: Produce a two-page written report on various findings regards to the cause of drug shortages in Canada using generated visualization in a two-column layout.

Dashboard on Topic modeling for EA
Data Analytic *Jan 2021 - Apr 2021*

- **Communication**: Independently develop a proof-of-concept to demonstrate to teammates and EA stakeholders potential solutions to word processing challenges.
- **Data Wrangling**: Preprocess the raw text data using R and transform them into text corpus and a document feature matrix later used for modeling.
- **Natural Language Processing**: Used natural language processing models, such as Latent Dirichlet Allocation and Structural Topic Modeling, to discover hidden trends among player feedback.
- **RShiny Dashboard**: Develop and deploy a front-end user interface using Shiny from Rstudio to allow users to extract insight from any text dataset using natural language processing models.

PROJECTS

Ace It - DubHacks 2019: A PDF scanner that takes questions and solution set then output them into a new PDF which randomizes the questions provided to help generate a realistic practice set.

CANSSI NCSC Ferry Delay Kaggle competition: supervised machine learning models using logistic regression, GBM, principal component regression, supported vector machine, gradient boosting, and random forest classifier to increase prediction accuracy for BC Ferry delays

Green Food Challenge: An Android Application consist of Carbon Calculator, Community Pledge, and Restaurant Guide to help people collectively reduce greenhouse gas emissions in Metro Vancouver.

PROGRAMMING SKILLS

- **Languages**: Python, Javascript, R, SQL, Java   **Technologies**: AWS, Google Cloud, Tableau, Web Hosting