

Joe Bui

Education

Master's in Data Science | Eastern University | GPA: 4.0 Jan. 2021 -- Nov. 2021

Bachelor's in Biochemistry | University of Waterloo | GPA last two years: 3.7 Sep. 2016 -- Apr. 2020

Projects

Tasty.co Recipe Insights | GitHub Dec. 2021

- Created a **Tableau Dashboard** providing insights on different cuisines and recipes from Tasty.co involving the most common ingredients used, nutritional values, and popularity
- Cleaned data and performed an exploratory data analysis using **SQL (PostgreSQL)**
- **Web scraped** recipes and cuisine data from Tasty.co using the **Python** library, Selenium

Graphical Search Method | GitHub | URL: lung-cancer-dmpymw37jq-ue.a.run.app Nov. 2021

- Deployed a **Plotly Dash** Application on the **Google Cloud** Platform, where users may graphically search for scientific journal articles on a plot that is filtered by similarity search, date, publication type, etc., and can be selected and saved into a csv file
- Applied **SBERT (NLP)** and cosine similarity for similarity search of keywords to journal articles
- **Web scraped** 200k+ journal articles from PubMed using the **Python** library, BeautifulSoup4, and performed data cleaning/wrangling using Jupyter Notebooks (**Pandas, NumPy**)

Predicting Appliance Energy Usage in a Low Energy Building | GitHub Jul. 2021

- Applied **time-series regression models** to predict future appliance energy usage within a low energy building
- Performed **time-series** data cleaning, exploratory data analyses and feature engineering (time periods, mean encoding and lags) using **Python (Plotly, Pandas, NumPy)**

Professional Development and Academic Services

Biochem Student Researcher | Dr. Guillemette's Lab | University of Waterloo Sep. 2019 – Apr. 2020

- Determined efficacy of inhibitors for the enzyme, Nitric Oxide Synthase, by analyzing enzyme kinetic assay data for research and development in treating brain-degenerative diseases including Alzheimer's and Epilepsy

Co-Founder | Cultured (Start-up) | University of Waterloo, Velocity Jan. 2017 – Mar. 2018

- Interviewed professors and graduate students on the workflow of research, the publishing and funding system, and the tools and skills required for replicability to investigate the problem of irreproducibility in academic research
- Designed an electronic lab notebook to improve organization and workflow efficiency of experimental procedures while preventing biases and poor habits in recording data
- **2nd Place Winner for Velocity Problem Pitch Competition W18: Awarded \$2500** to R&D by pitching the problem of irreproducibility in academic research, revolving the history, scope, and impact at an industrial level
- **1st Place Winner for St. Paul's Big Ideas Challenge S17: Awarded \$3000** and invited to the social entrepreneurship incubator, St. Paul's Greenhouse Fellows, by presenting the idea of sustainably synthesizing lab grown meat to replace the expensive costs of raising livestock for the contribution towards the sustainable UN world goal of Life on Land

Personal Information

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Languages and Aptitudes

Python

(Pandas, NumPy, Scikit-learn, Selenium, BeautifulSoup4)

R

(Tidyverse, Statistical Analysis, Visualization, Modeling)

Data Visualization

(Tableau, Excel, Qlik, Seaborn, Matplotlib, ggplot, Plotly Dash)

SQL

(PostgreSQL, Queries, Nested Subqueries, Joins, Procedures, Triggers)

Deployment/Pipeline

(Git, Github, Heroku, AWS S3, Google Cloud)

Machine Learning

(Regression, Classification, Clustering, Time Series, NLP, TensorFlow)

Volunteer Work

UWaterloo Biochem Executive
GRSM Physiotherapy Assistant
A&K Pharmacy Assistant
Epilepsy Fundraiser Manager
(epilepsy SCO)

Hobbies and Interests

Volleyball
Reading
Cooking
Sam club