LAUREN ZUNG

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EDUCATION

Master of Data Science

Vancouver, BC

University of British Columbia - GPA: 4.0/4.0

Expected June 2023

Bachelor of Science in Behavioural Neuroscience

Vancouver, BC

University of British Columbia - GPA: 3.9/4.0; Dean's Honour List (2017-2022)

May 2022

EXPERIENCE

Junior Data Scientist

May 2021 – Sept 2022

Vancouver General Hospital (Digital Emergency Medicine)

- Developed data pipeline architecture in Python to aid in the detection of lung pathologies, training and testing 20+ multiclass and binary classifiers (K-Nearest Neighbours, Support Vector Machines, Random Forest, Logistic Regression)
- Processed 150+ patient lung sound recordings to assist physicians with chronic symptom monitoring, extracting 25 novel audio signal features and generating predictions with an average testing macro F1 score of 0.867
- Presented findings to clinical and technical stakeholders at biweekly committee meetings

Administrative Research Assistant

Aug 2020 - May 2021

BC Children's Hospital Research Institute (Panenka Lab)

- Coordinated the design of 3 behavioural studies, including research questions and data collection; administering over 100 participant interviews and organizing repositories of online and written surveys used to assess well-being in COVID survivors
- Conducted preliminary analyses in R to report summary statistics on patient recruitment and response rates
- Maintained regular communications with cross-functional teams to construct grant applications, ethics proposals and materials

Undergraduate Teaching Assistant

May 2020 - July 2020

University of British Columbia

- Created and directed engaging walkthroughs on introductory computing concepts for 40-50 students in weekly tutorials
- Mentored 13 students on term projects involving data manipulations and visualizations using tabular datasets

PROJECTS

<u>Inspiritzia</u> January 2023

 A full-stack social platform that hosts a community feed for fashion enthusiasts to share outfit posts, shop online and get clothing recommendations; deploys an association rule learning model to automatically generate products using Flask APIs

Predicting the health inspection grade of New York City restaurants

Nov 2022 – Dec 2022

Performed exploratory data analyses and developed balanced SVM and logistic regression classification models on 30,000 inspection records, predicting health codes with over 90% accuracy; emphasizing reproducibility with Docker and Make

Cell-type organization in the cortex via single-cell transcriptomics

Sept 2021 – May 2022

• Identified presence of 5 locally expressed gene markers in rodent brain tissue by applying dimensionality reduction methods (UMAP, PCA/CCA) on a combined dataset of over 40,000 sequenced cells

SKILLS

Languages: Python, R, SQL, bash

Libraries: pandas, numpy, scikit-learn, scipy, matplotlib, altair, selenium, plotly, seaborn, pytorch; dplyr, tidyverse, ggplot2, glmnet Tools/Frameworks: Flask, Docker, Git, GNU Make, R Studio, Jupyter Notebooks, Visual Studio Code, MongoDB, Google Colab, Microsoft Excel, PyCharm, LaTeX, Tableau

Technical: inferential statistical/predictive modelling, unsupervised learning (clustering), A/B testing, data visualization, feature engineering & selection, relational database management, data structures & algorithms, web scraping, natural language processing