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), Graduated with Distinction — May 2022

EXPERIENCE

Junior Data Scientist — May 2021 – Sept 2022
Vancouver General Hospital (Digital Emergency Medicine)

- Developed data pipeline architecture in Python as part of a two-person data science team to aid in the detection of lung pathologies, training and testing 20+ multiclass and binary classifiers (KNN, SVMs, Random Forest, Logistic Regression)
- Processed 1500+ lung sound recordings to assist physicians with chronic symptom monitoring, extracting 25 industry-leading audio signal features and reducing the false positive rate from 34% to 18%
- 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 2 behavioural studies, including design of protocol and data collection methods; administering over 100 participant interviews and organizing survey and cognitive assessment data on Excel and REDCap
- Conducted preliminary analyses in R to report summary statistics and construct visual aids on 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 programming concepts for 40-50 students in weekly tutorials
- Mentored 13 students on term projects involving data manipulations and visualizations using tabular datasets and Python

PROJECTS

YouTube Trend Visualizer | **Python, R** | Interactivate dashboard that displays reactive visualizations on video and channel metrics extracted with the YouTube API; designed hi-fidelity wireframes and developed using R Shiny and Plotly Dash

Inspiritzia | **Python, SQL |** Full-stack social platform 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

colourpycker / colourpickr | **Python, R |** Packages for extracting colour codes (HEX, RGB) from image files for use in data visualization projects; uses CI-CD action workflows for publishing onto PyPI and CRAN

Predicting the health inspection grade of New York City restaurants | **Python |** Created scripts for data cleaning, exploratory analyses, and training 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 | **R |** Identified presence of 5 locally expressed gene markers in rodent brain tissue by applying dimensionality reduction methods (UMAP, PCA/CCA) using R (Seurat) on a combined dataset of over 40,000 sequenced cells

SKILLS

Languages: Python, R, SQL, Bash, HTML5, CSS
Libraries: pandas, numpy, scikit-learn, scipy, matplotlib, altair, plotly, pytorch; dplyr, tidyverse, ggplot2, infer, glmnet, rstan
Tools/Frameworks: Shiny, Dash, Flask, Docker, Git, GNU Make, R Studio, Jupyter, VS Code, MongoDB, LaTeX
Technical: statistical inferential/predictive modelling, unsupervised learning (clustering), data visualization (dashboarding), feature engineering & selection, deep learning, relational database management, natural language processing, time series forecasting