

Stepan Zaiatc

Data Scientist

Data-driven problem solver with a passion for uncovering insights and driving impactful decisions with three years of experience working in healthcare industry. Leveraging a diverse skill set in statistical analysis, machine learning, and data visualization to extract value from complex data sets. Seeking to utilize my knowledge and practical hands-on experiences in the field of data science. *Let's turn your data into a competitive advantage!*



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PROJECTS

suicideWatch Dashboard

This app written in Shiny and Dash analyzes suicide rates and socio-economic factors using data from the World Health Organization. It features interactive maps, bar charts, and line plots to visualize the data by country, gender, age group over time.

Inferential study of factors related to heart disease

The project identifies features associated with heart disease by analyzing demographic and health factors using permutation and Chi-Squared tests. Age, maximum heart rate achieved, and ST depression induced by exercise were found to be associated with heart disease.

forxpy

forxpy is a package created for Python and R that allows users to easily convert currency rates using daily exchange rate data from the Bank of Canada. The package supports multiple currencies and provides historical exchange rates.

Predictive analytics for clinical triage (June 2023)

I will be developing a machine learning model to assist nurse triage with the prediction of HEiDi physician disposition to support their decisions. This project aims to extend the physician expertise to the 8-1-1 nurse triage model and reduce urgent in-person ER visits safely.

GENERAL SKILLS

Data Visualization, Machine Learning, Deep Learning, Data Structures & Algorithms, Statistical Analysis, Data Preparation, Data Cleaning, GitHub Workflow

TECHNICAL SKILLS

Programming Languages

Python: NumPy, Pandas, Altair, Plotly, Dash, Matplotlib
R: dplyr, tidy, Shiny, ggplot, Stan

Databases

PostgreSQL, MongoDB

Other Software & Tools

Tableau, Deep Learning (TensorFlow), Machine Learning (Sci-Kit Learn)

EDUCATION

Master of Data Science (In Progress)

Anticipated Graduation July 2023

University of British Columbia

9/2022 – 7/2023

Bachelor of Science - Microbiology

University of British Columbia

9/2015 – 6/2019

- ▶ Dean's List (2018) – This designation recognizes exceptionally high academic achievements at UBC's Faculty of Science
- ▶ Deputy Vice-Chancellor Scholarship for International Students (2016, 2017, 2018)

CERTIFICATES

- ▶ Data Science for Everyone, DataCamp
- ▶ Intermediate Python, DataCamp
- ▶ Data Manipulation with pandas, DataCamp

WORK EXPERIENCE

Medical Laboratory Technologist

CardiAI

11/2021 – 9/2022

Vancouver, BC & Delta, BC

- ▶ Conducted SARS-CoV-2 RNA extraction and purification procedures with utmost precision and accuracy.
- ▶ Analyzed clinical samples from patients to detect COVID-19 infection utilizing qPCR techniques.
- ▶ Scrutinized quality control results before releasing reports to ensure their reliability and accuracy.
- ▶ Pioneered research and development of clinical diagnostic methods for assessing genetic risks of developing cancers, drug compatibility, food intolerance, and metabolic disorders.

Biomedical Laboratory Analyst

CARO Analytical Services

3/2021 – 11/2021

Burnaby, BC & Richmond, BC

- ▶ Executed SARS-CoV-2 viral RNA extraction and purification using KingFisher, followed by real-time quantitative PCR analysis of patients' clinical samples to determine COVID-19 infection.
- ▶ Conducted diverse microbiological assays and laboratory tests to ensure quality control and accuracy of results in compliance with regulatory standards.
- ▶ Performed comprehensive data processing and analysis, including calculations, data review, and entry utilizing relevant software and tools.
- ▶ Generated accurate and complete documentation of experimental procedures, test results, and equipment maintenance records as per quality assurance requirements.

Microbiology Analyst

CARO Analytical Services

3/2021 – 8/2021

Burnaby, BC & Richmond, BC

- ▶ Performed microbial testing on cannabis products for human pathogens following FDA, U.S. Pharmacopeia, and E.U. Pharmacopeia regulations.

- ▶ Conducted biochemical and serological identification of bacterial species to provide accurate information on the presence of harmful microorganisms.
- ▶ Researched and implemented novel qPCR approaches for microbial identification in cannabis to enhance the efficiency and accuracy of testing procedures.
- ▶ Performed manual extraction and purification of bacterial DNA using spin columns and analyzed its presence in various cannabis products by qPCR.

Microbiologist

Agat Laboratories

9/2020 – 3/2021

Burnaby, BC

- ▶ Employed enzyme-substrate technologies to detect bacterial species in environmental samples.
- ▶ Quantified heterotrophic organisms in drinking water samples via standard method for SimPlate analysis.
- ▶ Conducted membrane filtration and multiple tube fermentation for identification of bacteria on diverse selective and differential media.
- ▶ Validated microbiological water and soil testing procedures as per BC Ministry of Environment guidelines and performed environmental monitoring.

Inorganic Laboratory Analyst

Agat Laboratories

2/2020 – 3/2021

Burnaby, BC

- ▶ Conducted extensive analysis of environmental samples, measuring key chemical parameters such as ammonia, cyanide, BOD, TOC etc.
- ▶ Performed solid and aqueous digestion and extraction techniques to measure TKN, mercury and chlorophyll.
- ▶ Prepared and maintained quality control and calibration standards to ensure the accuracy and reliability of instrumentation.
- ▶ Maintained complete records of test results, raw instrument readings, and observations to ensure the integrity and traceability of data.