

# 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

[tieandrews.shinyapps.io/suicide\\_indicator\\_r](https://tieandrews.shinyapps.io/suicide_indicator_r)

[suicide-watch-jdpw.onrender.com](https://suicide-watch-jdpw.onrender.com)

[github.com/stepanz25/suicideWatch](https://github.com/stepanz25/suicideWatch)

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, and time period. The app allows anyone interested in exploring and analyzing suicide rates to study the trends in order to find measures to mitigate the detrimental effects of such phenomena.

### Inferential analysis of factors related to presence of heart disease

[github.com/UBC-MDS/inferential\\_study\\_heart\\_attack](https://github.com/UBC-MDS/inferential_study_heart_attack)

The project identified factors 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 significantly associated with heart disease.

### forxpy

[forxpy.readthedocs.io](https://forxpy.readthedocs.io)

[github.com/UBC-MDS/forxr](https://github.com/UBC-MDS/forxr)

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.

## GENERAL SKILLS

Data Visualization, Machine Learning, Deep Learning, Pattern Recognition, Database Structures & Algorithms, Statistical Analysis, Data Preparation, Quality Management, Agile Methodologies

## TECHNICAL SKILLS

### Databases

PostgreSQL, MongoDB

### Programming Languages

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

### Other Software & Tools

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

## EDUCATION

### Master of Data Science

University of British Columbia, Vancouver

9/2015 – 6/2019

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

### Bachelor of Science - Microbiology

University of British Columbia, Okanagan

9/2015 – 6/2019

## 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 (HPC) in drinking water samples through 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, etc.
- ▶ Performed solid and aqueous digestion and extraction techniques to measure TKN, mercury and chlorophyll A/B.
- ▶ 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.

## CERTIFICATES

Data Science for Everyone, DataCamp

Intermediate Python, DataCamp

Data Manipulation with pandas, DataCamp