Stepan Zaiatc – Medical Lab Analyst / Data Analyst / Lab Technician

236-863-3334 • zaiatc.stepan@gmail.com • www.StepanData.com • Vancouver, Canada

3+ years' Medical Laboratory experience. Motivated individual with experience working in microbiology, chemistry, and molecular biology laboratories, capable of conducting complex tests, reviewing, and generating high-quality analytical data while meeting all time requirements.

EDUCATION

University of British Columbia, *Master of Data Science*	2023
University of British Columbia, *Bachelor of Science – Microbiology*	2019
Columbia College, *Associate Degree – University Transfer, Vancouver, Canada*	2015
Centre of English Studies Dublin – *High school – Grade 12, Dublin, Ireland*	2014

QUALIFICATIONS AND TECHNICAL SKILLS

Microbiological Techniques	Instrumentation Operation & Troubleshooting	Molecular Biology	Technical Skills	Programming Languages
Bacterial Plate Streaking	Astoria Flow Analysis	RNA/DNA Extraction	Data Modeling	**Python:** Altair Dash Matplotlib NumPy Pandas Plotly Sci-Kit Learn TensorFlow
Biochemical Identification	BOD-200 SCP Science	RNA/DNA Purification	Data Preprocessing	
Cannabis Microbiology	Compound Microscope	ELISA	Data Visualization	
Cell Broth Inoculation	Gas Chromatography – Mass Spectrometry (GC-MS)	Gel Electrophoresis	Deep Learning	
Environmental Microbiology	HACH Colorimetric Analysis	Column Chromatography	GitHub	
Food Microbiology	KingFisher Flex	Flow Cytometry	Machine Learning	
Gram Staining	MANTECH PC-Titrate	RT-qPCR	Statistical Analysis	**R:** dplyr ggplot Shiny Stan tidy
Membrane Filtration	PCR	**Databases**	**Software & Tools**	
Multiple Tube Fermentation	SHIMADZU			
Pour Plate	SmartChem 200 Analyzer	MongoDB	CSS	
Serology Analysis	ThermoFisher Ion Chromatography	PostgreSQL	Tableau	
		SQL	MS Visual Studio	

DATA SCIENCE PROJECTS

Inferential Study of Heart Disease | R | **Dec., 2022**
- study identifying features linked to heart disease using permutation & Chi-Squared tests in R;
- analyze the correlation between heightened risks of heart disease and variables like age, gender, and cholesterol levels.

forxpy | Python & R | **Feb., 2023**
- package for converting currency exchange rates using Bank of Canada data obtained through API connection;
- provide historical exchange rates and support multiple currencies at once.

suicideWatch Dashboard | R | **Mar., 2023**
- dashboard analyzes suicide rates and socio-economic factors by visualizing the data by country, gender, age group over time;
- developed in Shiny and Dash, and includes interactive maps, bar charts, line plots.

Predictive analytics to support HLBC 8-1-1 and HEiDi triage | UBC Faculty of Medicine | **May, 2023 – Jun., 2023**
- develop pipeline for pre-processing and training ML models for nurse triage using data with 300 features and 30,000 observations;
- build front- and back-end applications for the nurse and Data Scientist to interact with.

CAREER HISTORY

CardiAI Inc. – Delta, Canada   **Nov., 2021 – Sep., 2022**
Medical Laboratory Technologist
- perform COVID19 RNA extraction & purification;
- utilize qPCR techniques to detect SARS-CoV-2 infection in clinical samples;
- perform microbiological assays and tests for quality control in compliance with regulations;
- pioneer research in clinical diagnostics for cancer risks, food intolerances, drug compatibility and metabolic disorders.

CARO Analytical Services – Burnaby, Canada   **Mar., 2021 – Nov., 2021**
Biomedical Laboratory Analyst
- perform SARS-CoV-2 RNA extraction/purification and analyze the presence/absence of RNA in patient's samples using RT-qPCR;
- set up and conduct microbiological tests and laboratory analyses in support of quality control in various products;
- carry out required data analysis and processing (i.e., calculations, data review, data entry etc.);
- receive and ship supplies, assist in restocking of laboratory consumables/chemicals, and prepare analytical standards and reagents;
- decontaminate and dispose of samples according to local regulations;
- maintain logs, records and calibrate laboratory instrumentation as required by quality documents.

Microbiology Analyst
- microbiological testing of cannabis for human pathogens following FDA, U.S. & European Pharmacopeia standards;
- quantitative and semi-quantitative analysis of cannabis for bile-tolerant gram- bacteria, total yeast and mold, aerobic microbial count;
- prepare media, buffer solutions and control cultures using certified stocks;
- biochemical and serological identification of bacterial species;
- participate in R&D processes to optimize microbial testing of cannabis by novel qPCR-based methods;
- DNA extraction and analysis of bacterial DNA in cannabis products by RT-qPCR detection;
- prepare and analyze food and cannabis products for presence of pesticides and herbicides.

Agat Laboratories – Burnaby, Canada   **Feb., 2020 – Mar., 2021**
Microbiologist
- perform method validation for microbiological water and soil testing following Standard Operating Procedures;
- conduct monthly environmental monitoring;
- operate and calibrate pH meter, IDEXX Quanti-Tray Sealer, compound light microscope;
- detect Total, Fecal, *E. coli* & *Enterococci spp.* of bacteria by enzyme-substrate methods of Colilert-18, Colisure & Enterolert;
- perform membrane filtration and multiple tube fermentation to identify Total, Fecal Coliforms, *E. coli* & *Salmonella spp.* of bacteria;
- quantify heterotrophic organisms (HPC) in water samples by standard method for SimPlate analysis;
- make and record observations, perform calculations, collect, and overview data for evaluation.

Inorganic Laboratory Analyst
- prepare samples for solid and aqueous digestion, extraction for Total Kjeldahl Nitrogen (TKN), total/dissolved mercury, strong/weak acid dissociable cyanide, chlorophyll A/B;
- prepare quality control and calibration standards for different instrumentations;
- perform routine analysis for ammonia, SAD/WAD cyanide, TKN, orthophosphate, anions, sulfide, total/residual chlorine, chemical oxygen demand, tannin and lignin, biochemical oxygen demand, total/dissolved organic carbon, chlorophyll A/B, UV transmittance/absorbance, electrical conductivity, acidity, alkalinity, turbidity using various methods and instrumentation.

Laboratory Technician
- receive and enter samples of various matrices into laboratory information management system;
- address any non-conformance, sample preservation and holding time issues;
- communicate any non-conformance issues between laboratory personnel and project managers.

Everything Wine Inc. – West Vancouver, Canada   **Aug., 2019 – Feb., 2020**
Wine Consultant
- greet customers upon entry, offering assistance and guidance in selecting products;
- provide excellent customer service, answering inquiries about various alcoholic beverages and making personalized recommendations;
- operate cash registers, handle financial transactions, and ensure accurate processing of sales;
- monitor inventory levels, restock shelves, and organize merchandise displays;
- enforce age verification procedures to ensure compliance with government regulations;
- handle and resolve customer complaints, maintaining a positive and customer-centric approach;
- collaborate with team members to execute promotional displays and marketing initiatives.

Sprott Shaw College – Vancouver, Canada   **May, 2019 – Aug., 2019**
Summer Camp Leader
- facilitate a safe and engaging environment for campers, ensuring their well-being and fostering a positive camp experience;
- contribute to the creative planning and execution of various programs, enhancing the overall camper experience;
- collaborate with a diverse team of counselors to coordinate daily activities, manage schedules, and address camper needs;
- communicate effectively with campers and parents, addressing concerns, and providing information about camp activities.

University of British Columbia – Canada   **Sep., 2018 – Jan., 2019**
Research Assistant
- assist graduate students at UBC School of Health and Exercise Sciences in their research of type 2 diabetes and cellular inflammation;
- perform ELISA assays to analyze protein concentrations in biological samples;
- maintain laboratory equipment and keep track of adequate inventory;
- manage biological and chemical wastes, prepared reagents, and standards;
- obtain experience working in a team environment and develop research skills.

AWARDS & SCHOLARSHIPS

Dean's Honour List   **2018**
- This designation recognizes high academic achievements at UBC's Faculty of Science.

Deputy Vice-Chancellor Scholarship   **2016 – 2018**
- This scholarship is awarded to students with high academic achievements.