

Alex Zakarian

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EDUCATION

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| <ul style="list-style-type: none">• MSc, Computer Science with Artificial Intelligence• MScA, Biotechnology (High Distinction)<ul style="list-style-type: none">◦ Transcriptomics Certificate◦ Python Certificate• Project Management Graduate Certificate (High Distinction)• Honors Bachelor of Science, Biology (High Distinction)<ul style="list-style-type: none">• Recipient of the Dr. Kaye Hayashida Biology Award | <p>University of York 07/2024 - Present
McGill University</p> <p>Conestoga College
Wilfrid Laurier University</p> |
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TECHNICAL SKILLS

- Programming & Development: Python (Pandas, NumPy, TensorFlow, Scikit-learn), SQL, Java, MATLAB
- Data Analysis: SPSS, Weka, Power BI, Tableau, MS Excel, Data Structures
- Machine Learning & AI: Neural Networks, Genetic Algorithms, Deep Learning, Predictive Modeling, Natural Language Processing (NLP)
- Biotechnology Techniques: ELISA, PCR, Protein Purification, Cell Culture, Plasmid Production, Viability Assays
- Data Visualization: Heatmaps, Correlation Graphs, Interactive Dashboards, Visual Reporting
- Tools & Platforms: Power BI, Tableau, SQL Server

PROFESSIONAL EXPERIENCE

Research Assistant

07/2024 - Present

Hamilton Urban Core Community Health Centre

- Led comprehensive qualitative and quantitative research projects, delivering actionable insights for stakeholders
- Performed advanced data analysis and statistical modeling using SPSS, SQL, and Power BI
- Enhanced data visualization for over 8,000+ client records, improving decision-making processes and data accessibility
- Designed and conducted surveys, interviews, and focus groups to support community health research initiatives
- Collaborated with multidisciplinary teams to deliver presentations and detailed reports for executive stakeholders

Clinic Manager

08/2021 - 07/2024

Crossroads North Medical Clinic

- Managed outpatient operations, improving efficiency and patient outcomes through process optimization
- Oversaw clinical workflows including patient triage, intake procedures, and lab specimen analysis (hematology, neurology, toxicology)
- Coordinated with multidisciplinary teams to align treatment plans with patient care goals
- Streamlined medication management processes, ensuring alignment with diagnostic data and patient safety

Research Associate Intern

05/2023 - 09/2023

Targa Biomedical

- Optimized transfection techniques in cell culture using nanoparticles and pharmaco-optimizers to enhance efficiency and cell viability
- Executed cell culture protocols, including cryopreservation, plasmid production, and bacterial cultures, ensuring optimal cell growth and maintenance
- Performed seeding, passage, plating, transfection, and assays (nuclei staining, live/dead, metabolic) to assess cell health and viability
- Collaborated on a cryopreservation viability protocol to improve cell viability assessments
- Worked effectively within a team, upholding aseptic techniques and lab safety standards
- Documented experiments rigorously and presented research findings clearly to lab members and supervisors

CERTIFICATIONS

- Good Clinical Practice (GCP)
- Health Canada Division 5 Certification
- Transportation of Dangerous Goods (TDG/IATA)
- Responsible Conduct of Research (RCR)

PROJECTS

- AI-Driven Child Mortality Prediction Application
 - Developed an AI-powered tool with 96% accuracy to predict child mortality, leveraging TensorFlow, Neural Networks, and Scikit-learn
- Python-Based Student Activity Analyzer
 - Created a Python application to analyze activity logs, generating statistical outputs (mean, median, mode) and visualizations such as heatmaps and correlation graphs