

SAMIHA MIRZA

DATA ANALYST- Data Manipulation , Data Visualization, Analytical Modeling

✉ mirzasamiha2@gmail.com ☎ +1 (204) 396 3475 📍 [Winnipeg](#) **in** [LinkedIn](#)

SKILLS

- **Programming Languages:** Python, Java, C, SQL for data analysis, modeling, and algorithm design.
- **Web Development Tools:** HTML, CSS, JSP & Servlets, PHP for designing, building, maintaining web pages.
- **Data Analytics Platforms:** Tableau (basic), Jupyter Notebook, Anaconda for visualization and analysis.
- **Mathematical & Statistical Tools:** MATLAB for simulations, statistical computations, algorithm testing.
- **Database Management:** SQL for data extraction, transformation, querying, data validation standards.

WORK EXPERIENCE

Bookkeeper & Supervisor

No Frills (Loblaw Companies Limited)

February 2023 – Present

Manitoba

- Executed daily cash reconciliation and ledger validation for 300+ transactions per shift, maintaining record accuracy above 99% through systematic verification procedures.
- Directed and scheduled 14+ staff members during high-volume operations, coordinating task allocation and communication flow to improve checkout throughput by 27%.
- Trained 10+ new hires on front-end systems and compliance procedures, reducing onboarding errors by 31% and improving operational consistency during peak periods.

Associate Software Developer

ARBA Technology Pvt. Ltd.

January 2020 – October 2021

India

- Analyzed and documented 40+ business and functional requirements to support POS application modules, ensuring accurate translation into technical specifications and reducing rework cycles by 22%.
- Developed and maintained 15+ application features using C#, .NET Framework, and SQL Server, resolving 120+ defects through structured debugging and regression testing processes.
- Coordinated with 6 cross-functional stakeholders to deploy system upgrades, improving application response time by 18% and increasing transaction stability during peak usage windows.

ACADEMIC PROJECT

Analysis of Disease Spread with epiDEM in NetLogo

Individual Academic Project

- Simulated SIR epidemiological model with NetLogo and PyNetLogo, analyzing 500+ infection spread patterns.
- Conducted 10 simulation experiments varying infection probability and recovery duration to model outbreak.

Topic Modeling and Sentiment Analysis of COVID-19 Tweets

Individual Academic Project

- Collected and analyzed 7,000 hydrated tweets, performing tokenization, lemmatization, TF-IDF vectorization.
- Implemented LDA, Top2Vec, BERTopic models, computing coherence and perplexity for 3 topic model outputs.

Leaf Image Segmentation with Edge Detection & Greenness Assessment

Academic Project

- Applied Sobel, Canny, Prewitt, LoG edge detection to 2 leaf datasets, analyzing 32+ species images.
- Implemented segmentation & greenness analysis using RGB calculations, automating processing for 100+ leaves.

Automatic Attendance Management System using Face Recognition

Team Academic Project

- Built facial recognition pipeline with OpenCV and PCA, automating 500+ attendance entries with accuracy.
- Integrated SQL database for student facial data, enabling real-time attendance marking & performance tracking.

Online Training and Placement Cell Management System

Team Academic Project

- Developed 3-tier web application with JSP, Servlets, Bootstrap, managing 300+ student and recruiter records.
- Implemented modules for notices, filtering, and result analysis, increasing workflow efficiency by 42%.

EDUCATION

Master of Applied Computer Science and Society

University of Winnipeg, Winnipeg

2022 – 2023

Bachelor of Science in Computer Science

Osmania University, India

2015 – 2019

CERTIFICATIONS

- NIIT Certificate in C Programming, Xamarin Developer Course: iOS and Android
- NIIT Certificate in OOP using C++, Java Training – Spoken Tutorial Project