

# Waleed Sherwani

wmksherwani@mun.ca ❖ +1 (709) 327-5285 ❖ St. John's, NL, CA |  [GitHub](#) |  [LinkedIn](#) | Feb 4, 2004 | Int. Student (Study Permit)

## EDUCATION

### Memorial University of Newfoundland (MUN)

*Bachelor of Engineering*

**2022 – Present**

*St. John's, NL, Canada*

- Computer Engineering | Academic Term 7 (4<sup>th</sup> Year) | Class of 2026 | GPA: 3.78
  - Faculty of Engineering and Applied Sciences: Dean's list (2022 – 2023)

## WORK EXPERIENCE

### AI & Automation Developer Intern

*Nasdaq*

**Sep. 2025 – Present**

*St. John's, NL, Canada*

- Designed the end-to-end architecture for an AI “Mixture-of-Experts” service that consumes code changes and surrounding organizational context, orchestrating multiple specialized LLM agents (e.g., performance, risk, testing, code quality) to generate feedback directly within GitHub workflows.
- Developed cloud-native data and analytics pipelines that aggregate engineering and knowledge-base telemetry from internal Q&A, code hosting, documentation, and CRM platforms into a centralized Data Lake on AWS, enabling SPACE and DORA-style productivity dashboards in Grafana.
- Implemented serverless collectors and ETL workflows using AWS services (e.g., Lambda, API Gateway, Glue, S3, Athena) to reliably ingest, transform, and surface engineering metrics for self-serve analytics and reporting.
- Built a retrieval and context-routing layer that blends structured metrics, knowledge-base content, and vectorized embeddings to ground agent reasoning and improve the relevance of AI-generated recommendations.

### Datalake Developer Intern

*Nasdaq*

**May. 2024 – Aug. 2024 & Jan. 2025 – Aug. 2025**

*St. John's, NL, Canada*

- Contributed to the development of a new data lake pipeline, utilizing Java, Scala, Spark, and Serverless Computing on AWS, with a strong focus on data storage and pre-processing.
- Implemented database splitting logic in Scala code and maintained setups for new data types, ensuring data quality through comprehensive data validations using Spark and Jupyter Notebooks.
- Collaborated with a team of data analysts to develop and implement data analytics solutions.
- Made significant contributions to the ongoing development of the Step Function in the Data Pipeline, integrating it with other AWS services to enhance pipeline efficiency.

### Data Analytics and Project Control Intern

*SNC-Lavalin - Dragados - Pennecon General Partnership (SDP-GP)*

**Sep. 2023 – Dec. 2023**

*Argentina, NL, Canada*

- Programmed specialized data analytics workflows in Python and C++, using libraries Pandas, NumPy, and Matplotlib for data manipulation, validation, and visualization, enhancing data processing and analysis.
- Implemented web parsing techniques for efficient database data collection using Selenium & Requests-HTML.
- Automated File-Sorting and Document Generation using Image Recognition with Tesseract and TensorFlow, based on a keyword model developed on a trained set of documents.
- Created file parsers, notably a Primavera P6 Critical Path Visualization using Python, JavaScript and Flask framework, along with a PowerBI Data Parser utilizing Python and JSON.

### Robotics Research Intern

*Memorial University of Newfoundland*

**Jan. 2023 – May. 2023**

*St. John's, NL, Canada*

- Integrated DekaBot & Adafruit Color Sensors into ZumoBots and developed custom C++ software to operate them.
- Developed ZumoBots' implementation in Swarm Robotics by comparing evaluated improvements from the DekaBot.
- Programmed contextual Line Detection Software and Alignment Algorithms with PID Control loop mechanisms.
- Implemented I<sup>2</sup>C protocol for communication between ZumoBots' microcontroller and various sensors and modules, improving the functionality and efficiency of the robots.
- Tested and debugged sensors and actuators in design implementations.

## ADDITIONAL EXPERIENCE

### Valiant Aerotech – Software Team Lead

Sep. 2024 – Present

*Student Design Hub – Memorial University of Newfoundland*

*St. John's, NL, Canada*

- Lead a software team of 5 engineers in the design, development, and deployment of autonomous flight control systems for UAV platforms.
- Represented Valiant Aerotech at the 16<sup>th</sup> AEAC Annual Competition in Alberta, showcasing autonomous flight prototyping and sensor-fusion techniques for firefighting applications.

### ISWEP Scientific Computing – Research Assistant

Sep. 2024 – Feb 2025

*Department of Chemistry – Memorial University of Newfoundland*

*St. John's, NL, Canada*

- Designed specialized implementation for  $\pi$  bonded molecular generation on the CReM framework.
- Developed Jupyter Notebooks with data analytics implementation for researchers.

### Data Quality Specialist

May. 2024 – Aug. 2024

*Medical Document Team – SiftMed*

*St. John's, NL, Canada*

- Performed comprehensive QA for system output, ensuring accurate document tags, groupings, and metadata before final client delivery.
- Automated document processing tasks, streamlining workflows with keyboard commands and resolving duplicate documents efficiently, using python

### Data Quality Assurance Analyst

May. 2023 – Sep. 2023

*Data and Image Analysis Group - Memorial University of Newfoundland*

*St. John's, NL, Canada*

- Analyzed medical images, ensuring data accuracy, and collaborating with researchers from both the DIAG and FAISAL Labs to improve patient care through automated image-derived metrics.

### ISWEP Research Assistant

Jun. 2022 – Sep. 2022

*Graduate Office – Memorial University of Newfoundland*

*St. John's, NL, Canada*

- Programmed a Python script that parses data from an Excel workbook and performs a selective Internet Search.
- Designed a survey analysis format using Excel, with automatic, predefined data visualizations such as linear models, predicted changes, and bell curves.

## PROJECTS

- *TripTailor* – Go | JavaScript | Docker | PostgreSQL
  - Developing a microservices-based itinerary sharing platform using Go and JavaScript.
  - Containerized the backend and database services using Docker
  - Designing RESTful APIs in Go for seamless communication between the frontend and backend.
- *Spenditure* – Java | JavaFX | Tesseract | Gradle | PostgreSQL
  - Written in Java on the JavaFX GUI platform for a desktop application
  - Wrote Image Recognition software using Tesseract to parse receipts
  - Created user data analytics using JGraphX and JavaFX
  - Warehoused user data using PostgreSQL
- More on [Github](#) :)

## SKILLS

|         |        |            |    |            |         |           |          |     |
|---------|--------|------------|----|------------|---------|-----------|----------|-----|
| ▪ C++   | Python | Java       | C# | JavaScript | Django  | Flask     | MongoDB  | SQL |
| ▪ NumPy | Pandas | Matplotlib |    | TensorFlow | PyTorch | Tesseract | Selenium | BS4 |
| ▪ KiCAD | PSpice | MATLAB     |    | AutoCAD    | Blender | MS Office | Assembly | R   |

## CERTIFICATIONS

- Google Advanced Data Analytics Sep. 2023
- Google Data Analytics Jan. 2023
- Onshape Fundamentals: CAD Learning Pathway Completion Jan. 2023
- Tech Stewardship Practice Program (TSPP) Dec. 2022
- Workplace Hazardous Materials Information System (WHMIS) Aug. 2022