

# Tarun Subramanian

+1(647)855-0089 | [tsubramanian@mun.ca](mailto:tsubramanian@mun.ca) | [linkedin.com/in/tarun010](https://www.linkedin.com/in/tarun010) | [github.com/tarun010](https://github.com/tarun010)

## EDUCATION

### Memorial University of Newfoundland

Bachelor of Science in Computer Science

St. John's, NL, Canada

Sept 2017 – Dec 2023

## EXPERIENCE

### Business Analyst

ChainSys Corporation

January 2022 – August 2022

Toronto, ON

- Developed data migration solutions for clients using Smart Data Platform.
- Analyzed and customized software to achieve operational efficiency.
- Provide training, technical, and functional support for clients in the North America region.

### Information Technology Support Assistant

Memorial University of Newfoundland

September 2022 – May 2023

St. John's, NL

- Communicate with managers to set up campus computers used on campus.
- Assess and troubleshoot computer problems brought by students, faculty and staff.
- Maintain upkeep of computers, classroom equipment, and 100+ printers across campus.

### Field Service Technician

Focal Systems

September 2022 – June 2023

St. John's, NL

- Installed, maintained, and repaired state of the art retail automation equipment.
- Inspected and tested equipment, diagnosed and located circuits, maintained component systems.
- Provided support during field visit, managed installations on site.

## PROJECTS

### Wine Quality Predictor | Python, Git, Jupyter, Machine Learning, Scikit-Learn

December 2023

- Explored impact of data transformations and feature selection on wine quality prediction using logistic regression.
- Optimized model accuracy through feature engineering techniques and identified key predictors of wine quality.
- Utilized Python libraries (Pandas, NumPy, Scikit-learn) for data analysis and model building in Jupyter Notebook.

### PerfectForm | Python, NumPy, OpenCV, MediaPipe, Git

May 2023

- Developed Python app using MediaPipe and OpenCV for posture analysis in workout videos.
- Analyzed side-profile video to detect exercise (squats), track form, and provide real-time feedback.
- Identified body landmarks, calculated angles, and alerted users on incorrect posture to prevent injury.

### Personal Website | Python, HTML/CSS, Git, REST APIs

August 2021

- Built responsive portfolio website using Flask, HTML, CSS.
- Integrated blog functionality with Markdown support and contact form using API.
- Developed dynamic content using GitHub API to display public repositories.

### Trading Bot Simulator | Python, Git, APIs

August 2021

- Built a trading bot simulator for paper trading cryptocurrencies.
- Simulated buying and selling based on price movements and stop-loss rules.
- Tracked trades and updated balance sheet in JSON files.

### Machine Learning Classification - Imbalanced Data | Python, Git, NumPy, Pandas, Scikit-Learn

May 2021

- Developed a machine learning model for binary classification.
- Evaluated various algorithms including Random Forest, SVM, Gradient Boosting, MLP, and Adaboost.
- Achieved optimal performance with Random Forest using hyperparameter tuning and imbalanced class handling techniques.

### Quoridor | Java, Git, Unit Testing

December 2020

- Developed a graphical user interface (GUI) for the abstract strategy board game Quoridor.
- Implemented game mechanics and functionalities in Java - player movement, wall placement, and AI integration.
- Designed menus and windows for user interaction, allowing board visualization, AI level selection, and gameplay navigation.

## TECHNICAL SKILLS & INTERESTS

● **Languages & Frameworks:** Python, C++, C, JavaScript, Java, SQL, HTML/CSS, React, MERN Stack, Flask web framework, OpenCV, TensorFlow, Scikit-Learn; ● **OS & Developer Tools:** Linux, MacOS, Windows, Git, Command Line/Shell Scripting, Visual Studio, VS Code, PyCharm, Eclipse; ● **Software Applications:** 3D CAD Design (SolidWorks), Video Editing (DaVinci Resolve), Microsoft Office;

● **Interests:** Cybersecurity, IT Troubleshooting, Cloud Computing, Azure, AWS, Docker & Kubernetes, Artificial Intelligence, Machine Learning, Deep Learning & Neural Networks, Large Language Models, Prompt Engineering, Image Processing, Financial Markets, Economics, Business Analytics, Blockchain, Emerging Technologies.