Parth Agarwal

(416)-912-2306 | p37agarw@uwaterloo.ca | parthag1202 | parth-aga12.github.io | parth-aga12

EDUCATION

Candidate for BASc Nanotechnology Engineering Co-op Sept 2020 - Present

University of Waterloo | Waterloo, ON

- President's Entrance Scholarship
- 1B - Term Dean's Honours List
- Excellent Standing in all completed terms, finishing 3rd year in Dec 2023

SUMMARY OF QUALIFICATIONS

- Proficient with **Python** (pandas, TensorFlow), MATLAB, Arduino, MS Power-Platform, HTML, CSS, Latex, **Splunk**, **Agile**, Jira and **Git**.
- Experience with **Java, JavaScript, Angular**, SQL, NodeJS, C++, Kotlin, XML, I2C protocol, Regex, **Tableau**, and LabVIEW.
- Excellent **Time-management skills** displayed by strong performance while completing a **dozen** separate tasks **in parallel** at TD, and by working on a MATLAB and LabVIEW **coding project** at the NRC.
- Achieved an **Excellent performance rating** at TD Bank by displaying ability within a professional office environment.
- Received a grade of **100%** in NE 113: Computational Methods, and averaged **above 95%** on python assignments throughout NE 336: Micro & Nanosystem Comp-Aid-Design, demonstrating skill in **applied math and programming**.

EXPERIENCE

Software Engineer Jan 2023 - April 2023

TD Bank | Toronto, ON

- Employed Excel, **Python (pandas)**, and MS Power-Tools to automate and **analyze extensive datasets**, safeguarding TD applications and **saving several hours weekly** for numerous teams.
- Demonstrated proficiency in **Data Analysis** by leveraging ServiceNOW, **Tableau** and **Splunk** to visualize, sort and report error data to support teams.
- Led multiple meetings to assist fellow teams through new automated protective measures, showcasing **adept leadership** and **effective communication** capabilities.
- Effortlessly collaborated with senior colleagues and fellow co-op students, fostering a supportive and cohesive work environment.

Lab Assistant: Black Carbon Metrology Jan 2022 - April 2022

NRC | Ottawa, ON

- Repackaged a **state-of-the-art** methane sensor to perform atmospheric measurements on NRCs proprietary aircraft.
- Developed **cross-team communication** skills while engaging with both NRCs Black Carbon Metrology and Aerospace divisions.
- Pair-programmed a **MATLAB simulation** that focused a laser using a convex lens.
- Reduced calculation time of a **LabVIEW model** which converted raw detector input to an absorption spectra by **80%**.
- In LabVIEW, created a **data pipeline** to organize large data pools of input metrics including atmospheric readings (temperature, humidity, pressure) and real-time spectra values for future analysis.

PROJECTS

Stock Market Trend Indicator using Machine Learning

Python: Pandas, ARIMA, Scikit-learn, Keras, MatplotLib, StatsModels, Plotly

- Demonstrated strong understanding of **machine learning** and **data analysis** through development of a stock price trend predictor using **LSTM, Random Forest,** and **ARIMA** models.
- Utilized yfinance **API** to retrieve specified historical ticker data to train and test machine learning model.
- Leveraged the **Pandas** library to efficiently **pre-process** and analyze stock market data, showcasing excellent **data manipulation** and analysis skills.
- Created **concise** and **informative graphs** using **Matplotlib** and **Plotly** to effectively communicate data patterns.

Soccer Fanatic | Astronomy Enthusiast | Animal Lover | Cinema Buff