Parth Agarwal

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SUMMARY OF QUALIFICATIONS

- Proficient with **MATLAB, Arduino**, Oscilloscopes, **Office 365**, AutoCAD/SolidWorks, PCB/Circuit design, Latex.
- Experience with **Java, JavaScript, HTML, CSS, Python (numpy, math)**, VSCode, Kotlin, XML, I2C protocol and LabVIEW.
- Familiar with **AM**, **C++**, Raspberry Pi, and NI myDAQ.
- Influential **leadership, communication, and teamwork skills** used to complete projects at the NRC and MSAM Labs.
- Excellent **Time-management skills** displayed by strong performance in stressful situations while characterizing a **dozen** materials at MSAM Labs, and by working on a MATLAB and LabVIEW **coding project** at the NRC.
- Achieved an **Excellent performance rating** at MSAM Labs by displaying ability within a professional lab and office environment.
- Received a grade of **100%** in NE 113: Computational Methods, and averaged **above 95%** on MATLAB assignments throughout NE 216 and NE 217: Advanced Calculus I and II, demonstrating skill in **applied math and programming**.

EXPERIENCE

Research Assistant: Additive Manufacturing Materials Developer May 2021 - Aug 2021
MSAM Labs | Waterloo, ON

- Demonstrated distinct **Critical Thinking skills** by Updating Standard Operating Procedure of various machinery and creating a standard powder labelling system, **enhancing workflow** and **organization** for all current and future lab members.
- Efficiently Characterized, analyzed data and completed reports for **12 metal powders** with error in raw data within **only 5%** exhibiting decisive **work ethic** and **organization**.
- Displayed dexterous **multitasking skills** while operating equipment such as the Granutools suite, FT4 Powder Rheometer and Camsizer X2 PSD analyzer to finish all projects **2 weeks** ahead of schedule.
- Trained 3 inexperienced Co-op students and a **PhD candidate** on lab protocol and characterization machinery on short notice displaying dynamic **leadership, communication, responsibility** and **time-management skills**.

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

Chrome Extension and Personal Website
JavaScript, HTML, CSS

- Developed a Chrome Extension with a simple and **effective UI/UX** in **1 day** that allows users to save websites for future use displaying **time management skills** and **self-sufficiency**
- Developed a personal website with an attractive UI/UX and full functionality within one week.
- Displayed understanding of development concepts such as **HTML, CSS and JavaScript and API integration** (Chrome).

EDUCATION

Candidate for BASc Nanotechnology Engineering Co-op Sept 2020 - Present
University of Waterloo | Waterloo, ON

- President's Scholarship
- 1B - Term Dean's Honours List

Soccer Fanatic | Astronomy Enthusiast | Animal Lover | Cinema Buff