

Mostafa Khattab

OTTAWA, ONTARIO

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EDUCATION

UNIVERSITY OF OTTAWA

BASC IN ELECTRICAL ENGINEERING & BSC IN
COMPUTING TECHNOLOGY (CO-OP)

September 2020 - Present

University Entrance Scholarship

Dean's Honour List: 2020 - 2022

LINKS

Website:// mostafakhattab.com

LinkedIn:// [mostafa-khattab](https://www.linkedin.com/in/mostafa-khattab)

Github:// [mkhattab22](https://github.com/mkhattab22)

WORK EXPERIENCE

ENVIRONMENT CANADA

POLICY ANALYST

September 2023 - December 2023

- Designed an automation tool utilizing Python to streamline report processing in Excel
- Conducted an extensive analysis of 150+ companies to assess their classification as Heavy Duty Vehicle entities
- Undertook a comprehensive research project on "Transitioning to Zero Emissions," culminating in a formal presentation to senior management

NATURAL RESOURCES CANADA

SOFTWARE DEVELOPER

January 2023 - May 2023

- Developed and implemented a user-friendly interface for energy consumption data analysis in RETScreen using C# and XAML, improving software functionality
- Prepared documents including facility archetypes in RETScreen to be sent to NASA for predicting future energy consumption based on weather data
- Created an XML database to include all new tools for the Watertool and edited it for improved efficiency and user interactivity

UOTTAWA AUTONOMOUS VEHICLE TEAM

ELECTRICAL ENGINEER

October 2023 - Present

- As a member of the electrical team, I specialized in designing circuits for autonomous vehicles
- Executed comprehensive testing of robotic components throughout each development phase to ensure optimal functionality
- Conducted thorough evaluations of robot motors by verifying their performance across varying voltage inputs

APPLIED PROJECTS

PORTFOLIO WEBSITE | HTML & CSS

- Designed a portfolio website using HTML and CSS to display my personal projects, technology stack and contact information
- This project gave me the opportunity to showcase my UI skills, in addition to using basic Javascript to change the color theme of the website

PLEEB RECYCLING | TEAM PROJECT IN UNITY & C#

- Developed a recycling-assistant application that our community to recycle in the most efficient way
- Used Vuforia Engine to determine whether an object is glass, plastic, or cardboard and displays it's appropriate bin

FILE COMPRESSOR | HUFFMAN ENCODING IN JAVA

- Used binary trees to store the Huffman tree and used priority queues as part of the greedy algorithm that builds the Huffman tree to compress any given file
- Created a lossless compression program that allows the original data to be recovered from the compressed data

UNIVERSITY COURSES

ACCREDITED

- Introduction to Software Engineering
- Electric Machines & Power Systems
- Data Structures and Algorithms
- Signal and System Analysis
- Engineering Design
- Electronics I & II

AWARDS AND CLUBS

3rd Waterloo Mathematics Competition
Awarded Black belt in Taekwondo and 35+ medals

TECHNICAL SKILLS

TECHNOLOGY STACK

Proficient with

Java • Python • C# • MATLAB • HTML5 • CSS3 • Arduino
.NET Framework • Unity • Quartus • Multisim