

## SUMMARY

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Hard working and motivated electrical engineer seeking to apply the knowledge acquired throughout my professional and academic career to learn industry standards and expectations in the Electrical engineering field.

## EDUCATION

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Concordia University, *Master of Engineering: Electrical & Computer Engineering (CO-OP)* Sept 2022 – April 2024  
- Specialization: *Power Engineering/Computing systems*

McGill University, *Bachelors of Electrical Engineering* Sept 2016 – April 2021  
- Minor: *Software Engineering*

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MAIN PROGRAMMING LANGUAGES: *C#, Python, MATLAB/Simulink, Falstad, ETAP, GAMS, Electrical CAD*

TOOLS: *Github, Git, Visual Studio, SQL, MSSQL, RESTful API, Azure, Postman*

LANGUAGES: *English, French*

CERTIFICATIONS: *Azure Data Fundamentals, Azure Fundamentals, ASP Construction*

## WORK EXPERIENCE

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**Electrical Estimator** May 2023 – Dec 2023

**Perfection Electrique**

- Prepared work to be estimated by collecting proposals, specifications, plans and tender Documents.
- Identified and reviewed the general and specific conditions of a project.
- Calculated costs by analysing labor and material requirements in a precise and accurate manner. Obtained quotes from suppliers.
- Analyzed Electrical Engineering plans and reduced costs by 5% for Aquatic Parc project by proposing alternatives to the electrical distribution.

**Junior Software Engineer** June 2021 – Feb 2022

**Mibusoft**

- In a group of 3, contributed to a Xamarin project in C# (IOS, Android, UWP). The application was designed for Veterinarians and allowed them to have an organized calendar consisting of their visits to farms. Where they can answer a questionnaire attached to their appointment as a way of documenting their visit.
- Worked on calendar view. Made synthetic changes and fixed miscellaneous bugs.
- Worked on a prescription app for pharmacies where they can order medical equipment / prescriptions, using Angular with C#/.Net as the backend.
- Managed to make the prescription app load the items 25% more quickly by making the calls to the database more efficient. Increased app usability by displaying items in a more user friendly-way, saving time when searching for items.

**Research Assistant** Jan 2021 – April 2021

**Lab of Gabriella Gobbi, MD, PhD, Neurobiological Psychiatry Unit, McGill University**

- Assisted with data processing utilizing MATLAB and Python.
- Assisted with the electrophysiology equipment. (ie recorded the signal coming off the protein, ensured minimal noise, and used laser test equipment to observe how the protein reacted to certain signals.)
- Made predictive model 5% more accurate in determining from the activity signal of the mice its state of consciousness.

# PROJECTS

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## **Wind Energy System Design for Power house**

Jan 2022 – April 2022

Renewable Energy Systems, Concordia University

- Wind generation system is designed to feed the load for three continuous days through an inverter and charge controller battery system with real wind speed data.
- Load requirement calculation considering energy efficient products.
- Design and sizing of battery and Inverter system.
- Turbine Selection and Sizing based on site constraints and data acquired from meteorological department.
- Design the electrical system to integrate the wind turbine with the power house's existing electrical infrastructure.

## **Social Networking News Website**

Sep 2022 – Dec 2022

Software Engineering, Concordia University

- Trending News website with location and user preferred categories
- Login through google authentication and save user data in database.
- Created Frontend Pages using python, integration of news API with the landing page, connected the endpoints for google News fetch to store in Database in SQL Server.

## **Design Project**

Jan 2019 – Dec 2019

### **Design of Power Control System, McGill University**

- Under Professor Bouffard's supervision designed a power control system by using GAMS modeling tool.
- Optimized benefits and minimized cost by implementing constraints and functions that depict typical behavior of energy distribution between photovoltaic systems (PV cells) and lithium-ion batteries.
- Concluded that there was benefit in pursuing a dual type of power system model.

## **SOS Generator using 555 timer and Digital Logic**

Jan 2024 – April 2024

### **Firmware development/Mechatronics**

- Designed a circuit to generate SOS signal by a push of a button and then wait for another push of the button before generating another SOS signal.
- Components included switches, resistors, capacitors, LED, potentiometer, Logic Gates, 555 timers, and transistors
- Completed simulation in FALSTAD.