

SAYON KATHIRGAMANATHAN

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SUMMARY OF SKILLS

- **Languages:** Python, C/C++, Java, JavaScript, HTML, CSS, PHP, SQL
- **Tools and Frameworks:** Bootstrap, jQuery, wxPython, MySQL, Git, Jira



EDUCATION

Bachelor of Engineering, Electrical Engineering (CO-OP) | McMaster University

Class of 2021 | Relevant Courses GPA: 3.7

- **Relevant Courses**
 - Engineering Computation, Principles of Programming, Data Structures, Computer/Advanced Communication Networks



PROJECTS

Board Game Simulator | Python Application

- Conceptualized and developed a multiplayer board game simulator by building an interface, using front-end library **wxPython**, which provides a fluid user experience
- Implemented back-end programming concepts such as data structures, graph theory, and game theory in **Python** utilizing a model view controller design pattern to monitor board game rules and alerts

Medical Clinic Website | Web Application

- Constructed a responsive landing page, based on the client's specifications, by using client-side programming technologies such as **Bootstrap**, **jQuery**, **JavaScript**, **HTML**, and **CSS** to achieve the desired aesthetic
- Developed a **MySQL** database which stores user booking data, as well as an email delivery system using **PHP**
- Created an appointment booking form which executes server-side functions when submitted, such as inputting data into the database and sending a post request to access the **PHP** API



WORK EXPERIENCE

Radio Frequency Engineer Intern | BLiNQ Networks

MAY 2020 – AUGUST 2020

- Developed a desktop interface using **wxPython** which exponentially reduces the time taken to analyze the production data of radio frequency modules while also displaying graphs and creating a CSV file of the compiled data
- Constructed an interactive settings menu which allows engineers to seamlessly start testing for newly added modules by adjusting preferences for data input, analysis, and output
- Prepared and presented proposals to a team of engineers consisting of various disciplines which resulted in faster detection of production issues

Electrical Rail & Transit Engineer Intern | Hatch Ltd.

MAY 2019 – APRIL 2020

- Designed training modules using **Adobe Captivate** by conducting research and coordinating with a team of engineers
- Worked on **AutoCAD** detailed design, drafting, and calculation of safety analysis for various transportation agencies
- Actively engaged with various engineering teams to monitor blockers and track the approval and sign off of technical documents which promoted on time delivery
- Executed project management duties by retrieving and organizing useful data from databases and assisting team leads with the preparation of technical documents and presentation materials



EXTRACURRICULAR ACTIVITIES

Electrical (Software) Team Member | McMaster Solar Car Project

SEPTEMBER 2017 – APRIL 2019

- Designed and implemented circuits used to activate solar cells to power a project car
- Designed a robust monitoring and display system using **Arduino**