

# 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: 3.5

- **Relevant Courses**
  - Engineering Computation, Principles of Programming, Data Structures, Computer 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**