

Miiyu Fujita

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education

McGill University

Sep. 2020 - May 2024

B.Eng., Electrical Engineering · GPA: 3.92/4.00

Activities & Involvement: Vice President Finance - *Sustainability in Engineering at McGill*; Ground Station SW & HW Project Lead - *McGill Rocket Team*; Co-Founder & Co-Facilitator - *McGill Book Club*; MAIS202 - *McGill Artificial Intelligence Society*

skills

Technology: Proficient in Java, Python, HTML, CSS, Bootstrap, JavaScript, jQuery, React, VHDL, ModelSim-Altera; Familiar with MATLAB, Git, FXML, Raspberry Pi, NX CAD

Languages: Fluent in English, Japanese and French

experience

Undergraduate Student Researcher | NSERC Undergraduate Student Research Award

May 2022 - Aug. 2022

McGill University | <https://github.com/miiyu-fujita/sure2022>

- Developed a step-by-step method to evaluate the effect of distributed energy resources (ex: solar panels, EV chargers) on electricity distribution networks using software tools, namely GridLAB-D and Python
- Wrote Python script to parse through GridLAB-D output JSON file, retrieve and output relevant data values in CSV format to increase efficiency of data retrieval and for easier visualization of data
- Wrote Python script to read and perform matrix multiplications on data from csv files to calculate voltage unbalance occurrences, using pandas and numpy libraries

Deputy Project Manager / Documentation Lead

Mar. 2022 - Apr. 2022

McGill University | <https://youtu.be/IlhDPOigXRw>

- Led a team of 6 engineering students during design process of automated storage and retrieval system
- Wrote Python code to interface with color sensor to detect and identify color used during delivery and sorting
- Improved system performance through iterative testing to obtain 100% success rate of functions (sorting/delivery)
- Outperformed system requirements for sorting and delivery processes by 400% and 167% respectively
- Authored system design, testing, hardware, software, project management and final design reports to provide adequate, updated documentation to client
- System implemented in Python using Raspberry Pi and LegoEV3 tools (i.e. Color & Touch Sensors, Motors)

Ground Station Software & Hardware Project Lead / Avionics Member

Sep. 2020 - Oct. 2021

McGill Rocket Team | <https://github.com/McGillRocketTeam/ground-station-2021>

- Designed and implemented live rocket telemetry ground station user interface
- Presented introductory lecture on ground station projects to new recruits during 2021-22 design cycle bootcamp
- Wrote back-end Java code to receive and parse rocket telemetry from rocket's flight computer, radios, and antennas
- Implemented front-end GUI functionality to present live rocket telemetry through animated graphical displays
- Followed version control practices to ensure smooth transition between design cycles (git & github)

Cyber/IT Risk Analyst Intern

Jun. 2021 - Aug. 2021

Business Development Bank of Canada

- Performed technology risk assessment of 5 third party vendors based on SOC 2 Type II reports
- Facilitated 26 cyber risk training and awareness conferences by updating spreadsheets and providing IT support

projects

Simon Game

Jan. 2021 - Apr. 2021

<https://github.com/miiyu-fujita/simon-game> | <https://simon-game-mfujita.netlify.app/>

- Implemented an online Simon game, where the user is prompted to memorize and replicate a pattern on screen, using JavaScript (jQuery library)