Mingrui Zhang

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TECHNICAL SKILLS

- C++17, C, Qt, Python, OpenGL, Gerrit, Jenkins, React

WORK EXPERIENCE

Savoir-faire Linux (Jami), Montreal - *Software Developer* **MAR. 2019 – DEC. 2021**

- Designed and Developed Jami clients on multi-platform.
- Maintained and managed the CI/CD systems for Jami clients.
- Participated in QML migration for Jami clients.
- Assisted the adaptation of Jami dependencies to build natively on Windows.

E-Innovation, Montreal - *Automation Developer Intern* **MAR.2017 – AUG. 2017**

- Cooperated with a Mechanical Engineering student to automate the sealing and taping progress of making a new type of electrode.
- Designed a system based on 3D printed parts and circuits controlled by certain logic uploaded in the Arduino Uno logic board.
- Wrote Arduino code and designed circuits by using electronic devices which include step motor, motor driver, switches, relays, etc.
- Wrote weekly documents which include the progress, the design, and the logic of the system and present to the project manager in weekly presentations.

ACADEMIC PROJECTS

OpenGL Based Mini DNF Like Game **JUNE – AUG. 2022**

- Designed and created a 2D game based on pure OpenGL and some third-party libraries.
- The game contained one main character for the player to use, one type of monster, and one NPC.
- Some UI elements, including dialog boxes, buttons, etc., were also implemented.
- The video presentation could be found here.

IoT – Sensor Data Management from Hardware to Cloud **NOV. – DEC. 2017**

- The system aimed to send recorded audio data from the programming board over the BLE (Bluetooth Low Energy) connection to the smartphone device. This data was saved as a file in the smartphone and uploaded to a cloud device.
- Implemented sound recording, board interconnections, and BLE hardware part in Embedded C.

Circuit Modelling & Simulation Project **SEP. 2017– MAY. 2018**

- Developed a program that can read a relatively simple circuit netlist and convert it into a Modified Node Analysis (MNA) equation in matrix form.
- By using the MNA information, it could perform DC, frequency domain, and sensitivity analysis and show the results in the written GUI.

EDUCATION

McGill University, Montreal Quebec **SEP. 2014 – MAY. 2018**

- B.E. in Electrical Engineering
- GPA: 3.56/4.00

University of Waterloo, Waterloo, Ontario **MAY. 2022**

- MEng in Electrical & Computer Engineering
- Software specialization