

Simon Roy

GPA : 4.15/4.3

Languages: French, English, German initiate
Student member of the OIQ

Training

Bachelor of Software Engineering 2021 -2024
Electrical engineering study 2020-2021

École de technologie supérieure (ÉTS), Montréal, QC

Diplôme d'études collégiales en technologie de l'électronique 2020

Specialization in computers and networks

CEGEP de Lanaudière à Joliette, QC

Special knowledge

Programming languages : Python, R, Java, C, C++, C#, JavaScript, HTML, CSS, MATLAB

Software : Visual Studio Code, Eclipse, Android Studio, Microsoft Office, Unity, Packet Tracer, Wireshark

Computers : Windows (home, server 2019), Linux, VMWare

Other : Qiskit, PennyLane, Tensorflow, React, Django, Git, OpenCV, Node.js, ROS & ROS2, PostgreSQL, Fusion360

Professional experience

Planetary robotics intern SINCE 2022

Canadian space agency (CSA), Montréal

- Management of a lunar map server and a database
- Development of a mission planning application (Django + React)
- Project management

Lab assistant SUMMER 2023

MTI882B : Algorithmic aspects of quantum computing, ÉTS

- Creation of learning resources (Notebook)
- Teaching PennyLane and various algorithms

Software Development Intern FALL 2021

OroliA, Montréal (Skydel)

- Processing and generation of satellite signals.
- MATLAB, Python and C++ programming.
- Using the Agile method.

Circuit design intern WINTER 2021

Lion électrique, Saint-Jérôme

- Circuit simulation and debugging.
- Program and analyze microcontrollers

Professional experience

Technology Analyst

WINTER 2020 – FALL 2022

Équi-Tél Inc., Mascouche

- ▶ Network design, telephone system programming
- ▶ Server maintenance (Linux)

Student club

Captain

SINCE H2023

QuantumÉTS, ÉTS, Montréal

Mission : *Promote learning about quantum computer programming.*

- ▶ Administrative management
- ▶ Training (Qiskit, PennyLane) and student workshop
- ▶ Hackathons

Software developer

SINCE A2022

CAPRA, ÉTS, Montréal

Mission : *Design and manufacturing of a search and rescue robot in rugged environments.*

- ▶ Creation of a container system
- ▶ Implementation of a mapping and navigation system (ROS)

Personal projects and distinctions

Projects

- ▶ IOT server (Python, Django, stack, IOT, Over the air)
- ▶ Solving games using NEAT AI (Python, pygame)
- ▶ Robot sweeper (Obstacle avoidance, circuit design, C)
- ▶ Facebook "like" counter frame (Arduino, IOT)
- ▶ Magic wand lighting a lamp (Accelerometer, radio, Arduino, 3D printing, C)
- ▶ Solar Bike and BLDC Motor Controller (Circuit Design, μ C, C Interrupt)

Achievements

- ▶ Certified Associate Developer - Quantum Computation using Qiskit v0.2X 2023
- ▶ Best in class in search and rescue, EnRich 2023
- ▶ 25th place in the QHack23 coding challenge 2023
- ▶ 3rd place at the BIG quantum Hackathon (technical part) 2022
- ▶ TensorFlow Developer Certificate 2022
- ▶ Internship Productivity Scholarship (Electric Lion) 2022
- ▶ Recipient of an Excellence Scholarship from the MES 2021
- ▶ Design of a tool to test health literacy at the Body Hack competition 2021
- ▶ First place in NASA Space Apps Challenge (local, Halifax) 2020