

Rick Huang

CA: +1 437-984-8773 | ricky.huang@mail.utoronto.ca | [LinkedIn](#) | [GitHub](#) | [Quantum Computing](#)

Education

University of Toronto - Trinity College (Toronto, Canada) Sep 2021 - present

Honours Bachelor of Science; Math and Physics Specialist, Computer Science Minor; GPA: 3.89/4.00

- **Awards:** Entrance award recipient at the Faculty of Arts & Science
- **Coursework:** Analysis with proofs, Linear Algebra

Tokyo University (Tokyo, Japan) April 2021 - Aug 2021

Honours Bachelor of Science; Math

Nishiyamato Gakuen High School (Nara, Japan) April 2015 - March 2021

GPA: 5.00/5.00

- **Exams:** ranked 27th in a nationwide exam, ranked 1st in my school

Professional Experience

Web3 Media Associate and Content Creator for Quantum Industry and Web3

RPA Holdings inc, 1-23-1 Toranomon, Minato-ku, Tokyo, [Official Website](#)

- Wrote articles about the entrepreneurship of the quantum industry
- Participated in the Q2B event and published a report about the event and the future of the quantum industry, and also shared emails and social media with 5 to 10 people attending the event.
- Formed partnerships with big web3 media platforms and podcasts such as Coinspeaker, Crypto Briefing, and Welcome to the Metaverse using LinkedIn and email

GUI Developer June 2022 - July 2022

Lean-tech inc, 1-8-3 Kanda Ogawa-cho, Chiyoda-ku, Tokyo, [Official Website](#)

- Created a GUI which will be used by owners of bars who want to control the amount of Sake they store inside the Sake server machines
- Utilized Node-red, Flask, and Streamlit to make the GUI interactive and connect to the database

Machine Learning Project (A government-funded project) May 2022 - present

Self-employed; customer: argobrain inc, 2-26-1604 1Chome, Shibukawa Kusatsushi, Shiga, Japan

- Taught how to use PyTorch based on the need of my customer
- Optimized the deep learning process of my customer using Fully Shared Data Prarell and PCA
- Enabled training/ testing the model in the customer's own ubuntu server.

Research on DNA reproduction March 2019 - April 2019

Kyoto University; Associate Professor Shigehiro Yoshimura

- Conducted an experiment on DNA reproduction, wrote a report, and presented the result to students in my high school

Research on Differentiation efficiency in ocular tissue production Aug 2019 - Sep 2019

Nara Institute of Science and Technology; Associate Professor Noriaki Sasai

- Cultivated ES cells in a medium (gfCDM medium) and observed how the cells turned into ocular tissues

- Wrote a report about the experiment and presented the result and discussion to students from my high school

Side Projects

Qiskit Quantum Challenge Fall 2022 (Advanced Badge) Nov11 - Nov18

By IBM

- Completed all the challenges and received Advanced Badge
- Implemented VQE in Qiskit
- Applied VQE and Eigensolver in quantum chemistry to find the ground state of the H_3^+ molecule.

Quantum Machine Learning Classifier Oct 2022 - present

QBraid Hackathon QML Classifier Challenge

- Implementing a classifier based on quantum machine learning using PennyLane and Amazon Braket
- Constructing a variation classifier with a feature map, a variational circuit, and a Z-basis measurement.
- Optimizing the number of iterations, depth, and stepsize to increase the accuracy of the “model.”

Quantum Multiplication Sep 2022

Quantum Open Source Foundation Mentorship Challenge

- Implemented Quantum Multiplication Algorithm using Qiskit
- Wrote a step-by-step research about how to achieve the multiplication of integers in quantum computing

Chrome Extension for Sustainability and Productivity Aug 2022 - Sep 2022

IET Hackathon Challenge 2022

- Created a Chrome Extension using JavaScript and HTML, CSS
- Utilized Official Chrome APIs such as “debugger API,” “cookies API” to assess the environmental impact of each website
- Led a team of 3 programmers; organized scheduled meetings and assigned tasks to each member
- Calculated the carbon footprint of each website using an established formula
- Implemented a functionality of blocking the website the user wants to block

Quantum 3D game July 2022 - Aug 2022

Womanium Quantum Hackathon, IBM challenge

- Created a 3D world using Ursina engine (Python) in which players can explore the functionality of the Bloch Sphere.
- Led a team of 3 programmers; organized scheduled meetings and assigned tasks to each member depending on their skills
- Organized a learning flow of quantum computing; 1, playing with concepts 2, coding challenge 3, real-world implementation

WebApplication using Ruby Aug 2021 - Mar 2022

- Created an MVC model WebApplication using Ruby on Rails.
- Deployed the WebApplication using GitHub and Heroku

Skills

Language: English (Fluent), Japanese (Native), Chinese (Everyday conversation)

Programming: Python, Java, JavaScript, Ruby, C#, SQL, HTML, CSS

Frameworks, Libraries: Qiskit, PennyLane, PyTorch, Tensorflow, Flask, Unity, Ursina, Streamlit, Ruby on Rails

Tools: GitHub, Node-red, Word, Excel, Slack, Discord, Zoom, VSC, Atom, Notepad++, IntelliJ