HUYEN DO

GRADUATE STUDENT

OBJECTIVE

A lifelong learner with a strong passion for Quantum Computing and Computer Science, driven to apply academic expertise and contribute to technological innovation while continuously expanding my knowledge and skills.

EDUCATION

Aalto University | Finland
Master's Degree in Computer, Communication and Information Sciences
Major: Computer Science - Algorithms, Logic, and Computation
August 2024 - Now

Aalto University | Finland
Bachelor's Degree in Science and Technology
Major: Quantum Technology
GPA: 4.5/5
August *2021 - June 2024*

TECHNICAL SKILLS

- **Programming Languages:**
  - Scala
  - Python (Matplotlib, Pandas, Numpy)
  - C/C++ (OOP, memory management)
  - Proficient with MATLAB and LaTeX
- **Quantum Computing:**
  - Qiskit, Cirq, Stim framework
- **Software Development:**
  - Version control with Git
  - Database management with SQL, PostgreSQL
  - Familiar with DevOps practices
- **Scripting & Virtualization:**
  - Bash scripting for automation tasks
  - Creating and managing Docker containers

REACH ME AT

huyendo.emma@gmail.com

LinkedIn

huyenemma.github.io

WORK EXPERIENCE

Research Assistant
Quantum Operating System group, Aalto.
September 2024 - Now

Quantum computing trainee
CSC - IT Center for Science. *May 2024 - August 2024*
- *Explore the potential of Helmi quantum computer running on Lumi supercomputer.*

Teaching Assistant
Operating System, Aalto . *May 2023 - Now*
- Head of TA (May 2024 - Now)
- Engineered,managed course's assignment database.

Practical Quantum Computing, Aalto. *Sep - Dec 2024*
Programming 2, Aalto. *Jan - May 2024*

Study tutor
Guild of Physics, Aalto. *September 2022 - May 2023*
- Tutored Quantum Technology freshmen at Aalto, helping them navigate study-related challenges.

PROJECTS

- **Grover's Search algorithm on 5-qubit machine**

Implement a quadratic speedup search algorithm with [[4, 2, 2]] quantum error detecting code on real 5-qubit quantum computer

- **Optimizing quantum circuit by using transformers**

A project explores the optimization of quantum circuits using the Cirq library. It involves transforming input circuits using gate identities to optimize performance, considering factors like gate set and circuit size

- **Micro Machine game in C++**

It features advanced physics and graphics, implemented using the Box2D physics engine and the SFML library.

- **Ovulation Day Prediction using Linear Regression**

A project in Machine Learning course. Constructed a machine learning model to forecast a woman's ovulation day, utilizing menstrual cycle data.

CERTIFICATIONS

- UnitaryHack 2024
- IBM Quantum Challenge: Spring 2023
- Womanium Quantum Computing certificate
- Google cloud skill Qwiklabs badges

SOCIAL EXPERIENCE

Google Developer Group Mien Trung Vietnam
Community Member
October 2019 - Present
- Facilitate connections among developers to share experiences and collaborate on projects.

Vietnamese student association in Finland
Head of Event team
November 2021 - July 2022
- Led the Event Team in organizing and executing various cultural and social events.

LANGUAGES

- Vietnamese: Native proficiency
- English: Full professional proficiency