Xuan Du Trinh

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Education

09/2023 – present · **PhD student in Computer Science**
Stony Brook University, New York, United States
Thesis advisor: *Prof. Nengkun Yu*
Research interests: *Quantum computing, quantum learning theory, quantum networks*

09/2022 – 08/2023 · **Master in Quantum Information**
Quantum Information Center (QICS), Sorbonne Université, France
Thesis: "Nonlocality distillation"
Advisor: *Jean-Daniel Bancal, Mirjam Weilenmann and Peter Brown*

09/2021 – 08/2022 · **Master in Theoretical Physics**
International Centre for Fundamental Physics (ICFP)
Ecole normale superieure (ENS) de Paris, France
Thesis: "Classical simulation of shallow random quantum circuits"
Advisor: *Prof. Omar Fawzi*

09/2018 – 08/2021 · **Engineering program (Ingénieur polytechnicien)**
Ecole polytechnique, Institute polytechnique de Paris (IPP), Palaiseau, France
Specialized in *Fundamental Physics*

Experience

02/2024 · **Reviewer of conference IJCNN 2024 on Quantum Machine Learning**

05/2023 – 09/2023 · **Research internship**
Center for Theoretical Physics (IPhT), Commissariat à l'Énergie Atomique (CEA), France
Advisor: *Jean-Daniel Bancal, Mirjam Weilenmann and Peter Brown*
Project: "Nonlocality distillation"
Study distillation of quantum nonlocality based on convex optimization and consequent applications in quantum cryptography.

04/2022 – 07/2022 · **Research internship**
Inria de Lyon, Ecole normale superieure (ENS) de Lyon, France
Advisor: *Prof. Omar Fawzi*
Project: "Classical simulation of shallow random quantum circuits"
Understand techniques developed for the classical simulation of shallow random quantum circuits. Develop and test new method for simulating shallow random quantum circuits based on semidefinite programming.

03/2021 – 07/2021 · **Research internship**
Irène-Joliot Curie Physics of Two Infinities Lab, Orsay, France
Advisors: *Louis Fayard, Zhiqing Zhang*
Project: "Study of parton distribution functions associated to the uncertainty in the W boson mass measurement"
Analyse the contribution of the parton distribution functions' uncertainty to the systematic uncertainty of the W boson mass measurement in the ATLAS detector.

06/2020 – 08/2020 · **Research internship**
CEMAFROID–SAS, Fresnes, France
Project: "Confinement of a refrigerated box using lateral air curtains"
Design a lateral air curtain model to improve the efficiency of the cold conservation in cargo truck while unloading.

Achievements

09/2023 – 09/2025	**Chairman Fellowship**
	Granted by the Department of Computer Science, Stony Brook University
10/2021 – 09/2022	**VALLET Scholarship**
	Financial sponsorship by the VALLET Foundation
09/2018 – 08/2021	**EIFFEL Scholarship**
	Financial sponsorship by the French government
04/2016	**Third prize** in the Vietnamese Mathematical Olympiad for undergraduate students
03/2015	**Third prize** in the Vietnamese Physics Olympiad for high school students

Skills

Languages	Vietnamese (Native), English (B2), French (B2)
Programming	MATLAB, Python, Java, C
Software	ROOT, COMSOL, Ansys Fluent, Mathematica, MS Office