# NATÁLIA CAPRA FERRAZZO

in LinkedIn — Portfolio — GitHub — C Credly

Nationality: Italian-Brazilian Location: Paris, France

#### About

I am an Engineering Physicist specializing in Quantum Information and Quantum Computing at Sorbonne University, with experience in application development from my previous role at IBM. I am particularly interested in exploring quantum algorithms and optimization techniques, with a focus on quantum information theory, to advance the understanding and practical applications of quantum computing in solving complex computational problems.

#### EDUCATION



# Sorbonne University

Paris, France

Master's Degree in Computer Science - Quantum Information

Sept. 2023 - Jun. 2026



# Federal University of Rio Grande do Sul

Porto Alegre, Brazil

Bachelor's Degree in Engineering Physics

Feb. 2016 - Nov. 2022

Thesis: Grover's Search Algorithm: Comparative study of the performance of quantum hardware made available by IBM, Microsoft, and Amazon.

## Extracurricular Activities

4eu+ 4EU+

Jun. 2024

Quantum Information and Quantum Many-Body Theory Summer School

University of Copenhagen, DN

Course page



#### THE CODING SCHOOL

Apr. 2023

Introduction to Quantum Computing with IBM Quantum

Remote



## **UNIGOU Internship**

Feb. 2022

Paper: Solving the Traveling Salesman Problem with IBM Quantum

Remote

Course page

#### Experience

IBM IBM

Aug. 2021 - Jul. 2023

Application Developer - Full Stack

- Collaborated to develop and maintain backend services using Java and microservices architecture, ensuring modularity, scalability, and high performance for a banking investment portfolio application.
- Participated in designing and building the frontend using Angular to create a responsive and user-friendly interface for a mobile application that enabled clients to view, analyze, and manage their investment portfolios efficiently.
- Worked with QA team, assisting with testing by writing and reviewing test cases, performing code reviews, and ensuring that features met functional and performance standards.

C Cadastra

Nov. 2020 - Aug. 2021

Data Scientist

- Assisted in data gathering, analysis, and visualization using Python and Google Analytics to measure results, draft daily reports, and generate insights for marketing strategies and business goals.
- Applied machine learning models and clustering techniques to forecast sales and segment customers, enabling the CRM team to personalize communication effectively.
- Collaborated with the team to develop a tool for verifying the legitimacy of affiliate assignment sales and implemented a cross-selling strategy for a travel company.

# HIGHLIGHTED CERTIFICATIONS



IBM Certified Associate Developer Quantum Computation using Qiskit



IBM Quantum Challenge 2024 Achievement



Qiskit Global Summer School 2022 Quantum Excellence



IBM Data Science
Professional Certificate



Qiskit Advocate



IBM Quantum Challenge Fall 2022 Achievement - Advanced



IBM Quantum Spring Challenge 2022 Achievement



Nanodegree Program AWS Machine Learning

To check other achievements, please visit my Credly page.

# Languages & Skills

**Languages:** Portuguese (Native)  $\cdot$  English (C2)  $\cdot$  French (B1)  $\cdot$  Spanish (B1)

 $\begin{array}{l} \textbf{Skills:} \ \ Quantum \ \ Computing \cdot Machine \ Learning \cdot Data \ Science \cdot Python \cdot SciPy \cdot NumPy \cdot Pandas \cdot Git \cdot Qiskit \ SDK \cdot Watson \ \ Studio \cdot Jupyter \ Notebook/Lab \cdot Postman \cdot Docker \cdot Agile \ Methodology \cdot Javascript \cdot Node.js \cdot SQL \cdot ETL \cdot Typescript \cdot Angular \cdot JAVA \cdot OOP \cdot HTML \cdot CSS \\ \end{array}$ 

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