Guillaume PAYA-MONET

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Full UK Settled Status

Education

09/2023 09/2024	**University of Oxford** *(Oxford, United Kingdom)* MSc in Mathematics and Foundations of Computer Science Specialisation in Quantum Computing and Category Theory. Courses incl. Category Theory, Quantum Processes and Computing, Computational Game Theory
09/2020 06/2024	**Telecom Paris - Institut Polytechnique de Paris** *(Paris-Saclay research-innovation cluster, France)* Master of Engineering. *Major: Mathematics, Theoretical Computer Science, and Operational Research; Minor: Data Science.* Courses incl. applied and discrete mathematics (theoretical computer science, algorithms, theory of computation, graph theory), physics (classical physics, relativity theory, information theory), electronics, networks.
09/2017 06/2020	**École Polytechnique - Institut Polytechnique de Paris** *(Paris-Saclay research-innovation cluster, France)* Bachelor of Science Honours. *Double Major: Mathematics & Computer Science.* Courses incl. algebra, analysis, topology, differential calculus, complexity theory, concurrent computing, asymptotic statistics, stochastic processes. (Grade Grande Ecole: 14.6/20)

Professional Experience

06/2022 09/2022	**Riverlane Labs** *(Cambridge, UK)* Quantum Computer Scientist (intern). Conceived and built, in a new programming language Rust learned in 7 days, a tool used to simulate the execution of a quantum algorithm in a completely structurally customizable quantum computer. In process of writing an academic paper: "*Prediction of Trapped Ions Quantum Computers Performance and Scalability by Simulating Quantum Control Systems.*"
07/2021 08/2021	**HawAI.tech** *(INRIA and CNRS spin-off, Grenoble research-innovation cluster, France)* Data Scientist (intern) in probabilistic artificial intelligence in this university spin-off founded by Prof. Pierre Bessière (CNRS, College de France). Build the test base, tested, and benchmarked the performance and efficiency of 10 recommender systems (bayesian programming) developed for corporate clients.
01/2019 05/2020	**École Polytechnique - Institut Polytechnique de Paris** *(Paris-Saclay research-innovation cluster, France)* Student Researcher at the Computer Science Laboratory (LIX/COSYNUS) with Prof. Samuel Mimram, Head of the Research Programme "Problems of flow for concurrency solved using Category Theory". Bachelor thesis: "*Towards a Generator of Discrete Models in the Form of Simple and Efficient Maximum Flow Algorithms.*" (Bachelor Thesis Grade: 16/20).

Others

11/2022 Present	**Innovis VC** *(London, UK)* Largest European Venture Capital organization for students. 6-week training in startup analysis and in the processes and dealings of a venture capitalist firm. Putting the theory to practice by sourcing start-ups for funding in the UK (pre-seed and seed). Presentations to VC firms' partners. Won due-diligence competition.
09/2022 Present	**Telecom Paris - Institut Polytechnique de Paris** *(Paris-Saclay research-innovation cluster, France)* Award 2023 Telecom Paris – Quantum Innovation Start-up Award (Prix des Technologies Numériques) Lead a team of 7 students. Sourcing and analysis of 10 quantum start-ups and 30 nanotechnology start-ups in France, to find the most innovative and award them the Telecom Paris Innovation Prize.

Languages & Skills

Languages	English (native speaker). French (native speaker). German (working ability at EU level B1)
Goal-setting Framework	Objectives and Key Results (OKRs).
Computing Skills	<u>Advanced</u>: *Languages*: Python, RUST, C, C++, LaTeX; *Machine Learning*: Pandas, OpenCV; *Blockchain*: Consensus Protocol Ethereum Casper FFG. <u>Intermediate</u>: **Languages**: COQ, Prolog, OCAML, Haskell, Java, Scala, HTML, JavaScript, MySQL; **Machine Learning**: Tensorflow, Keras; **Blockchain**: Blockchain Programming, Smart Contracts Metamask; **IT Architecture**: Distributed Architecture, Concurrency; **Project Management Methodologies**: Agile, Scrum.