Guillaume PAYA-MONET
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Full UK Settled Status

Education

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.

09/2020 – 06/2021 **Telecom Paris - Institut Polytechnique de Paris** *(Paris-Saclay research-innovation cluster, France)*
Student Researcher (volunteer) with Prof. David Bounie, Head of the Economics Department.
Research project: "*Analysis and modelling of the impact of international laws on consumer personal data*"

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).

Other qualifications

11/2022 – 12/2022 **MIT - Quantum Computing Algorithms for Cybersecurity and Optimization** *(Online certificate)*
Course on the applications of quantum computing. Modern cryptography, Shor's algorithm, and quantum optimisation. (Grade 88%)

01/2022 – 05/2022 **MIT – Introduction to Quantum Computing** *(Online certificate)*
Course about core principles and practical application areas of quantum computing. Qubit modalities, quantum information and Qiskit practical. (Grade 93%)

07/2021 – 09/2021 **Santa Fe Institute - Computation in Complex Systems** *(Online certificate)*
Course in theoretical computer science taught by Prof. Cris Moore: computational complexity, from search algorithms and solution landscapes to reductions and universality, with problems ranging from polynomial time to NP-complete to undecidable.

Awards

03/2021 **HI! PARIS, HEC and Institut Polytechnique de Paris** *(Jouy-en-Josas, France)*
Interdisciplinary Center for Research in AI Applications' Hackathon: "*Artificial Intelligence for energy and cost optimization in a smart grid.*" Top Prize for the quality of the scientific approach (CapGemini Award).

12/2019 **École Polytechnique - Institut Polytechnique de Paris** *(Paris-Saclay research-innovation cluster, France)*
Outstanding Student Award for dedication to the École Polytechnique community.

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	Advanced: – *Languages*: Python, RUST, C, C++, LaTeX; – *Machine Learning*: Pandas, OpenCV; – *Blockchain*: Consensus Protocol Ethereum Casper FFG. Intermediate: – *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.