Quentin VELARD

+33 7 77 03 63 39

Paris, France

✉ quentin.velard1@gmail.com

in Quentin Velard ○ qvelard ⊕ velard.fr

MSc candidate in Applied Mathematics and Data Science, specializing in computer vision. Experienced in R&D analysis and machine learning through internships at Bpifrance and RMIT University. Skilled in Python, R, SQL. Expertise in developing machine learning models and integrating emerging technologies into innovative solutions.

Education

MSc in Applied Mathematics, Ecole des Mines *Sept. 2021 – Feb. 2025*

Top 5 France Engineering School Nancy, France

– **Relevant Coursework:** Data Analysis, Machine Learning, Deep Learning, Blockchain, Time Series

– **Core Courses:** Numerical Analysis, Quantum Mechanics, Statistical Physics

MSc in Data Science, University of Lorraine *Sept. 2024 – Feb. 2025*

Dual degree Nancy, France

– Stochastic Processes, Reinforcement Learning, Optimization, Scalable Database and System Architecture

Bachelor of Science, Sorbonne University *Sept. 2018 – Sept. 2021*

Paris, France

– Three intensive years of training in Mathematics, Physics, and Chemistry for French engineering competitive exams.

Experience

STMicroelectronics *Feb. 2025 – Sept. 2025*

Computer Vision Research Engineer - End-of-study Internship Grenoble, France

– Evaluated radiation effects on semiconductor components using AI-based methods.

– Developed a tool for predicting component sensitivity based on physical descriptions.

– Transitioned the tool into production for CMOS 40nm technology.

RMIT University Laboratory *Feb. 2024 – Jul. 2024*

Quantum Machine Learning Intern Melbourne, Australia

– Co-author (2024), **QCORD: Quantum Continual learning with Representation Distillation in Variational Quantum Algorithms**, under peer-reviewing for IEEE submission.

– Adapted a classical incremental learning algorithm into a quantum version within an MLOps framework.

Bpifrance, Public Investment Bank *Jun. 2023 – Dec. 2023*

R&D Analyst Intern Paris, France

– Evaluated and financed digital R&D innovation projects supporting French governmental strategies.

Projects

Antioxidant Biomolecule Generation via GAN and Diffusion Model *Sept. 2024 – Mar. 2025*

Academic project

– Developed deep learning tools to generate novel biomolecules with antioxidant and anti-inflammatory properties.

Technical Skills & Certificates

Web Development : React.js, TypeScript, TailwindCSS, Node.js (Express, NestJS)

Data Science/ML : Python (Numpy, Pandas, Matplotlib, Scikit-learn, Qiskit, PaddlePaddle), R, MATLAB, Machine Learning (PyTorch, TensorFlow)

DevOps Tools : Docker, Netlify, GitHub Actions

Certifications : AWS AI Practionner, DeepLearning.AI : CNN, chatbot with LangChain

Interests

Professional Interests : Member of the Student Scientific Convention on Hydrogen, supporter of The Shift Project and the French Nuclear Energy Society (SFEN), regularly attends conferences on cryptocurrencies, blockchain, decentralized finance, AGI, AI for industry, and general models for robotics.

Sports : Half-marathons, swimming, trekking, and mountaineering.