Contribution ID : **19**   Type : **Talk**

Auto Quantum Machine Learning with AQMLator

Friday, 11 September 2026 09:40 (25)

Since the 2010s, when deep learning became feasible, machine learning (ML) has been experiencing ever-growing attention. The ability to teach large ML models gave rise to various neural network architectures, such as convolutional neural networks or generative adversarial networks. Around the same time, technological advancements allowed us to also direct our attention to quantum computing (QC), a computation paradigm that uses quantum mechanical phenomena. Naturally, quantum and hybrid ML models began to appear, and with them, a daunting task – how to design the architecture for such models?

We present AQMLator, an Auto Quantum Machine Learning platform. It aims to automatically propose and train the quantum layers of an ML model with minimal input from the user. This way, AI scientists can overcome the entry barrier for QC and use quantum machine learning (QML) or hybrid models. AQMLator uses standard ML Python libraries, making it easy to introduce into existing ML pipelines.

Primary author(s) :   Dr RYBOTYCKI, Tomasz (SRI PAS, NCAC PAS, CEAI AGH); Prof. GAWRON, Piotr (NCAC PAS, CEAI AGH)

Presenter(s) :   Dr RYBOTYCKI, Tomasz (SRI PAS, NCAC PAS, CEAI AGH)

Session Classification :   Quantum computing and machine learning