Tutorial at QuantumWeek: Oct 17





Schedule

Session 1 Introduction to Quantum Computing and Machine Learning

Session 2 Design of QuantumFlow and Hands-On Examples

Session 3 Build Quantum Circuit for NN Acceleration using QFNN

Session 4 Furture Works: QF-Mixer, QF-RobustNN, and Others

Session 5 Discussion and Q&A



Resources



https://github.com/JQub/QuantumFlow_Tutorial (Source Code of All Hands-On in Tutorial) https://github.com/JQub/qfnn (Source Code of QFNN API & Place to post Issues)



https://pypi.org/project/qfnn/ (Package of QFNN on PYPI) https://libraries.io/pypi/qfnn/ (QFNN on Libraries.io)



https://jqub.ece.gmu.edu (JQub Website)
https://jqub.ece.gmu.edu/categories/QF (QuantumFlow Website for news and slides)
https://jqub.ece.gmu.edu/categories/QF/qfnn/ (QFNN Documents)



https://www.nature.com/articles/s41467-020-20729-5 (QuantumFlow Paper)



https://arxiv.org/pdf/2012.10360.pdf (Paper on How to Correct Map NN to Q) https://arxiv.org/pdf/2109.03806.pdf (QF-Mixer) https://arxiv.org/pdf/2109.03430.pdf (QF-RobustNN)



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https://esweek.org/ https://qce.quantum.ieee.org/ Registration is needed for attending!



https://github.com/weiwenjiang/QuantumFlow_Tutorial https://pypi.org/project/qfnn/