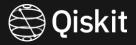# (# 21) Developing Tutorials for Quantum Machine Learning

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Qiskit

Developing tutorials for Quantum Machine Learning

Qiskit

Goal:

- To develop tutorials for **quantum machine learning** algorithms.

- To create video, blog for better understanding for **Quantum Machine Learning Algorithms**.

- To contribute Qiskit Youtube content as video as well as Journal paper/Hands-on Tutorial

Hand Picked Problems

1. Analysis of classical Support Vector Machines.

2. Analysis about Quantum Support Vector Machines.

3. Comparison from both classical and quantum SVM versions

Contribution #1

Qiskit

To develop tutorials for quantum machine learning algorithms.

- **Analysis :** Real-time Student Performance Dataset before and after tutorial

- **Classical approach:** How classical version of Support Vector Machine functions and how it is implemented in general cases.

- **Quantum approach:** How Quantum Support Vector Machine functions and how to implement it along classical version.

- **Conversion process:** Analysis and discussion about how to convert from classical version into quantum version and its possibilities.

Contribution #2

To create video, blog for better understanding for Quantum Machine Learning Algorithms.

- **Quantum Support Vector Machines(QSVM) :** Aim to develop a video tutorial for quantum support vector machines for better understanding.

- **Blog:** simplistic version for tutorial blog over QSVM

- **Interactive Notebook:** intended to create interactive jupyter notebook for enhance learning experience.
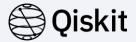
Contribution #3

Journal Paper/ Conference Paper

- Aims to published a journal paper about what are all difficulties involved during learning Quantum Support Vector Machines from learners perspective.

- Based on the real time feedback from learners before and after tutorial videos. Aims to record their improvements in learning Quantum Support Vector Machines
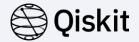
Future Work

1

Publish the work in Journal

2

Creating Interactive Tutorials for Quantum Support Vector Machines.

3

Analyse and record improvement of learning experience.

Thank You