

# (# 21 ) Developing Tutorials for Quantum Machine Learning

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# Developing tutorials for Quantum Machine Learning



## 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

## 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.

## 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**