Résultats donnés avec des tests sur 20 itérations pour le VQC et le QCNN.

On utilise 10 données d’entraînement et 50 données pour le score.

Weights du VQC (Dry\_bean\_dataset) : [[-0.15155443, 0.03289792, -0.14296978, 0.01073419, -0.02191593, -0.0019281,

-0.14784011, -0.0409323, -0.00325512, 0.02059717, -0.11453522, 0.06808275,

-0.03777734, -0.09488475, 0.01733188, 0.05791952], [-0.15155443, 0.03289792, -0.14296978, 0.01073419, -0.02191593, -0.0019281,

-0.14784011, -0.0409323, -0.00325512, 0.02059717, -0.11453522, 0.06808275,

-0.03777734, -0.09488475, 0.01733188, 0.05791952]]

Weights du QCNN (Dry\_Bean\_Dataset:

[0.15155443, 0.03289792, -0.14296978, 0.01073419, -0.02191593, -0.0019281,

-0.14784011, -0.0409323, -0.00325512, 0.02059717, -0.11453522, 0.06808275,

-0.03777734, -0.09488475, 0.01733188, 0.05791952]

Weights du QCNN (HTRU\_2):

[-0.15155443, 0.03289792, -0.14296978, 0.01073419, -0.02191593, -0.0019281,

-0.14784011, -0.0409323]

Weights du VQC (HTRU\_2): [[-0.15155443, 0.03289792, -0.14296978, 0.01073419, -0.02191593, -0.0019281,

-0.14784011, -0.0409323], [-0.15155443, 0.03289792, -0.14296978, 0.01073419, -0.02191593, -0.0019281,

-0.14784011, -0.0409323]]

HTRU\_2.csv :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ACCURACY SCORE | QCNN | VQC (random) | VQC (qiskit) | VQC (Ry + CNOT) | QSVM | MLPC |
| Angle(Ry) | 0.94 | 0.94 |  | 0.90 | 0.92 | 0.9 |
| Angle(Rx) | 0.60 | 0.70 |  | 0.88 | 0.85 | 0.9 |
| Angle(Rz) | 0.50 | 0.50 |  | 0.50 | 0.38 | 0.9 |
| Amplitude | 0.94 | 0.40 |  | 0.90 | 0.70 | 0.9 |

Dry\_Bean\_Dataset :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ACCURACY SCORE | QCNN | VQC (random) | VQC (qiskit) | VQC (Ry + CNOT) | QSVM | MLPC |
| Angle(Ry) | 0.92 | 0.88 |  | 0.88 | 0.92 | 0.9 |
| Angle(Rx) | 0.94 | 0.96 |  | 0.88 | 0.85 | 0.9 |
| Angle(Rz) | 0.5 | 0.5 |  | 0.5 | 0.46 | 0.9 |
| Amplitude | 0.68 | 0.96/0.52 |  | 0.84 | 0.46 | 0.9 |