

Algorithm encodes financial information onto each qubit; via a series of RX rotation gate operations. Parameterize gates using real-time streaming data of returns, standard deviation (converted to PCA 1, 2 values) of each assets, algorithmic trading strategies, and portfolios data. After transforming our high-dimensional, high-frequency real-time data, we encode the resulting PCA 1, 2 values onto qubits; represented by each qubit's quantum state, where theta (θ) is the angle of rotation.

$$\overline{q_0: | \text{Rx}(\theta) |}$$

Ex. Leap IDE output:

$$\overline{q_0: | \text{Rx}(0.01) |}$$

$$\overline{q_1: | \text{Rx}(0.02) |}$$

$$\overline{q_2: | \text{Rx}(0.5) |}$$

$$\overline{q_3: | \text{Rx}(0.4) |}$$

$$\overline{q_4: | \text{Rx}(0.6) |}$$

$$\overline{q_5: | \text{Rx}(0.7) |}$$