

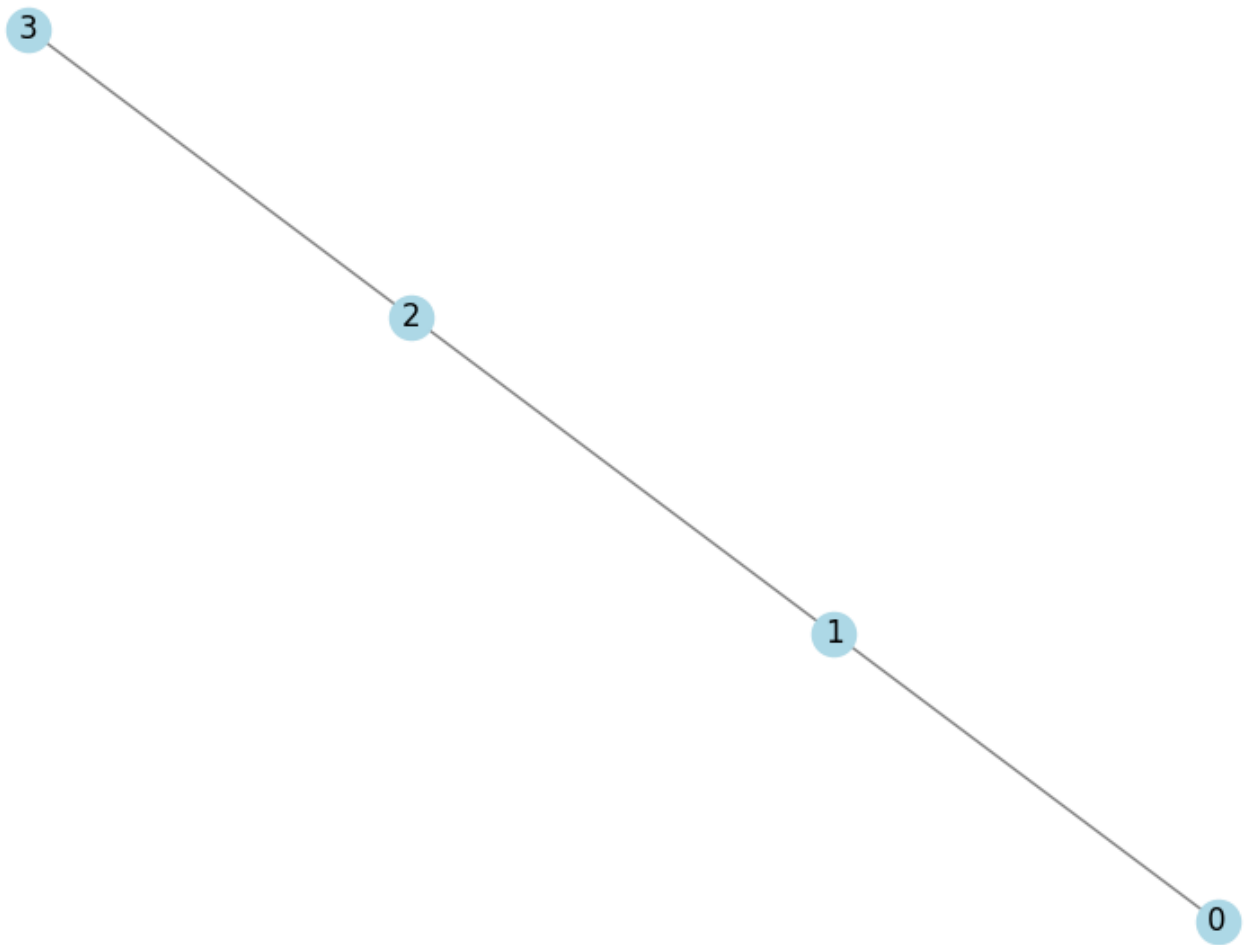
# MaxCut Problem Report

GRAPH:

Number of Nodes: 4

Edges of Nodes: [(0,1), (1,2), (2,3)]

Visualization of Graph:



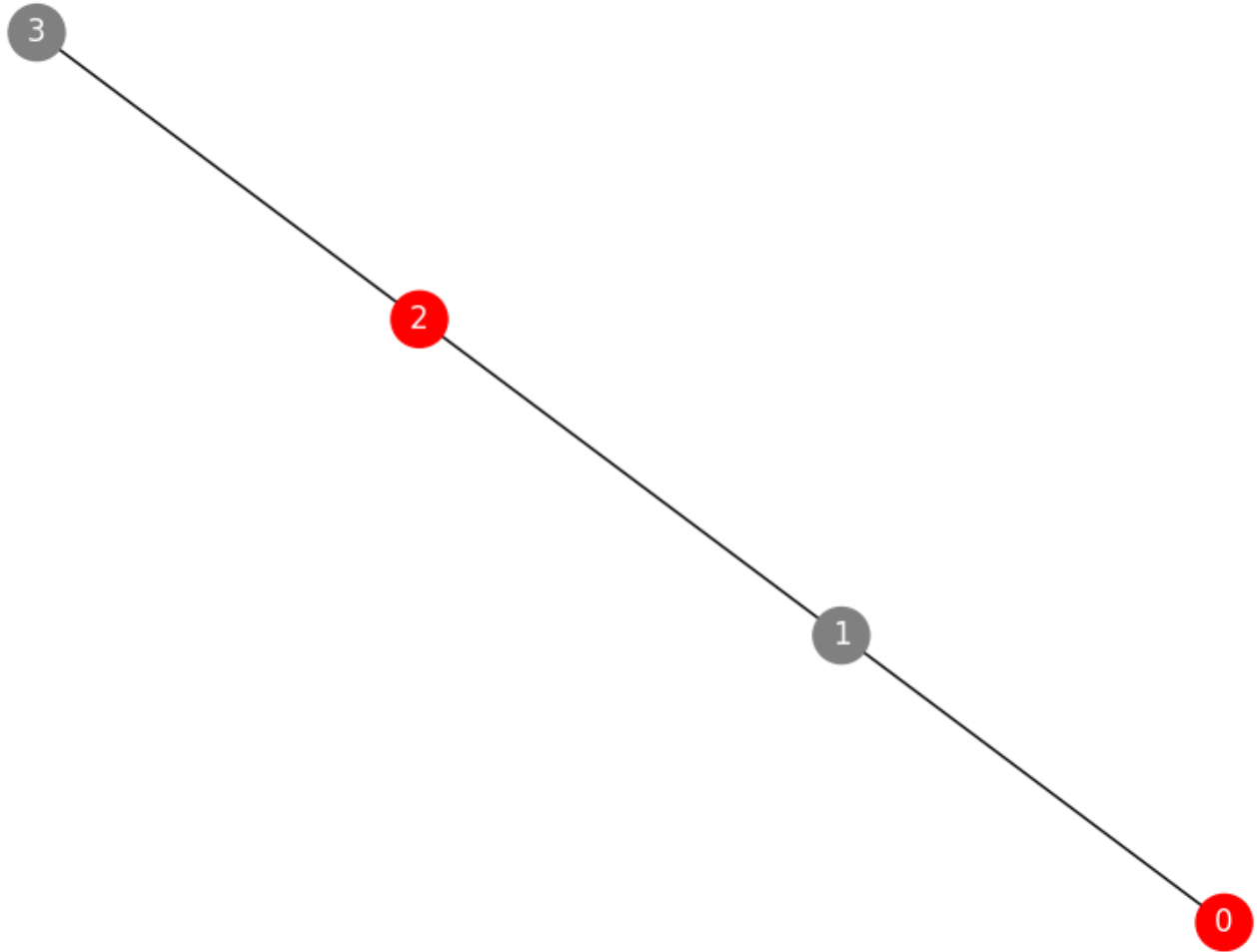
## QAOA Optimization, generated quantum circuit

# QAOA Optimization Results

Most Probable Solution:

[1 0 1 0]

Visualization of QAOA Solution:



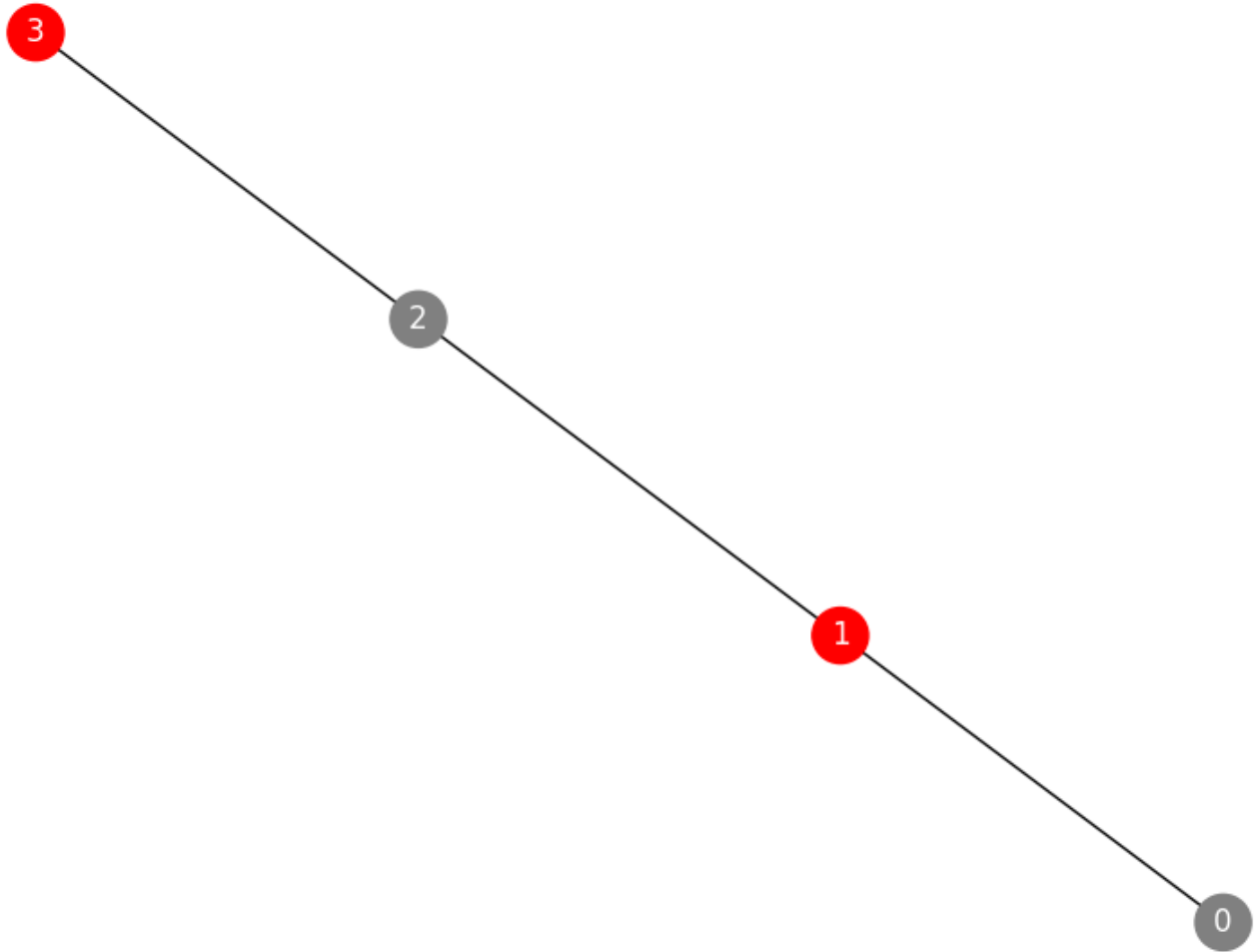
## VQE Optimization, generated quantum circuit

# VQE Optimization Results

Most Probable Solution:

[0 1 0 1]

Visualization of VQE Solution:



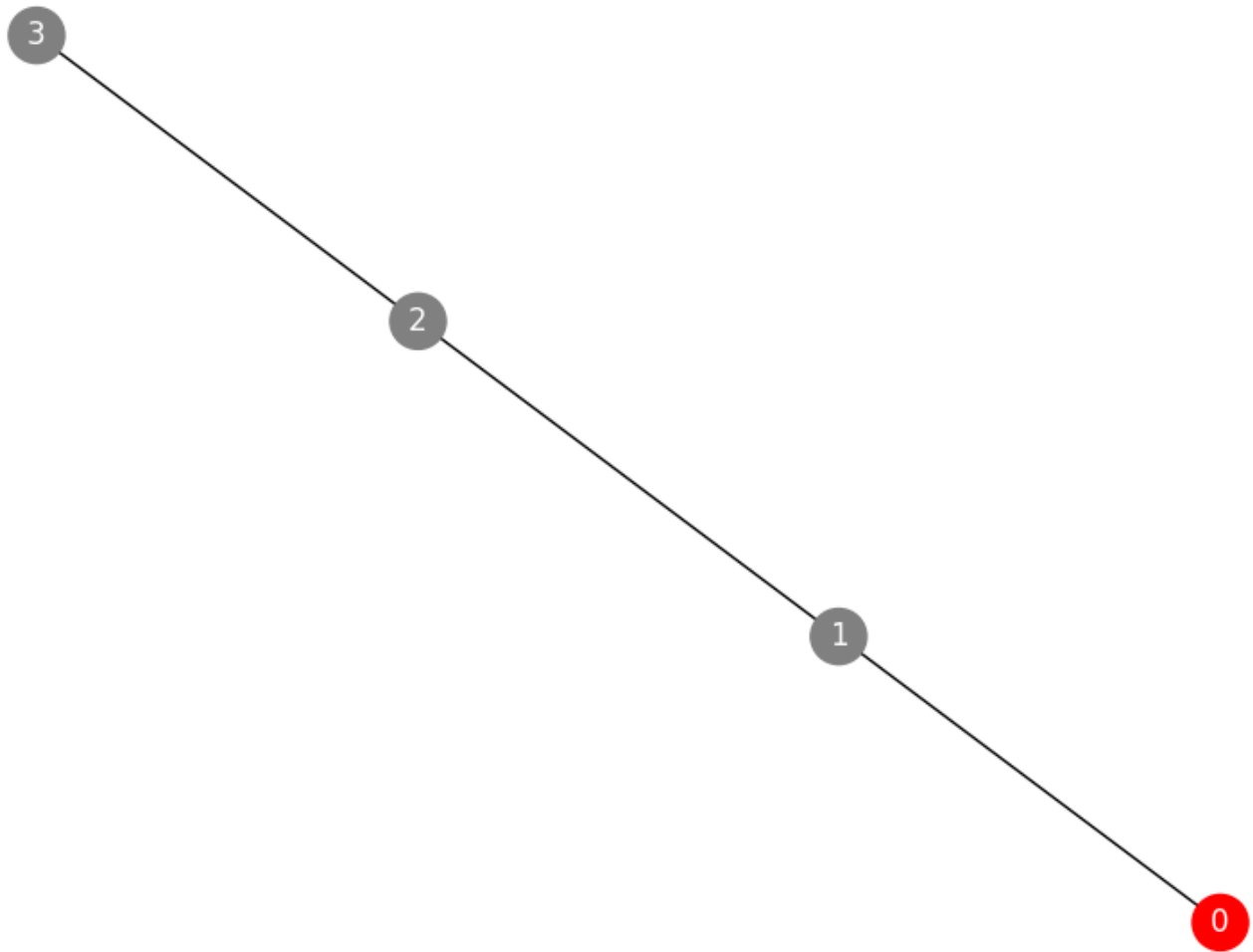
## Grover algorithm, generated quantum circuit

# Grover Optimization Results

Most Probable Solution:

[1 0 0 0]

Visualization of Grover Solution:



## Devices recommendation based on VQE circuit

- Lowest error: Quantinuum H1 from Azure Quantum with a calculated error of 0.7%, time to execute:

5717.647059 seconds and a price of \$16875.0.

- Lowest time: IQM Garnet from Amazon Braket with a calculated error of 6.31%, time to execute: 0.028

seconds and a price of \$87.5.

- Lowest price: Rigetti Ankaa-9Q-3 from Azure Quantum with a calculated error of 13.62%, time to execute:

0.094 seconds and a price of \$0.12.