

# Quantum Computation Using IBM's Qiskit

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# Course Introduction

This course will introduce quantum computing:

- Quantum computing basics
- Quantum gates and algorithms
- Quantum information basics
- Quantum error correction
- Quantum entanglement
- and more!

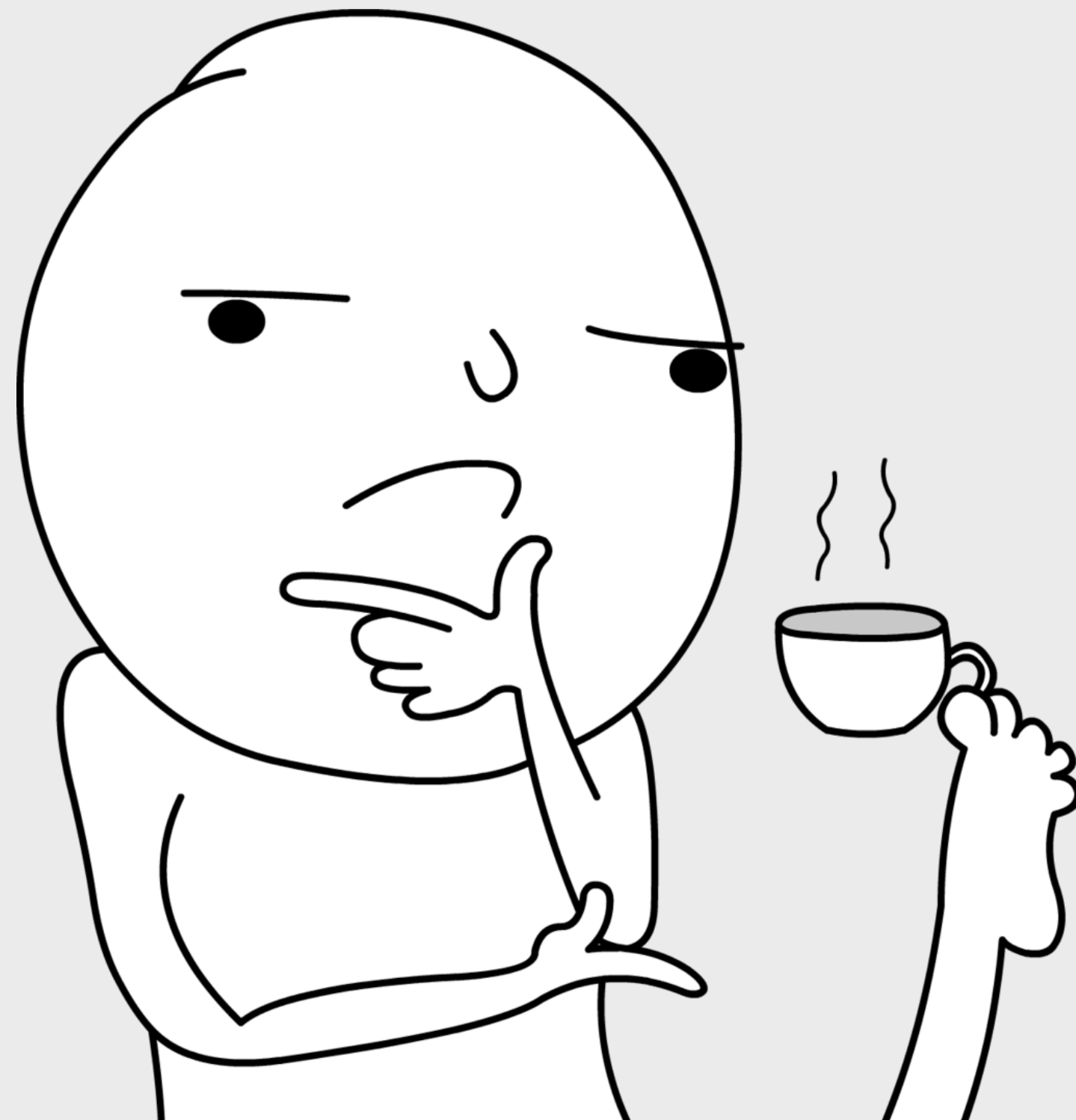
**Background needed:** Linear algebra, Basic quantum theory, Python programming

**Resource Link:** <https://github.com/jayluxferro/QCIP>

**Lecture Recordings:** [https://drive.google.com/drive/folders/1UDTjLbOaAbdyhjMhEfny5LiEDdpgtAih?usp=share\\_link](https://drive.google.com/drive/folders/1UDTjLbOaAbdyhjMhEfny5LiEDdpgtAih?usp=share_link)

# Recap

Why quantum computing?



# Quantum Computing using Qiskit

**Qiskit:** <https://www.ibm.com/quantum/qiskit>

**IBM Quantum Platform:** <https://quantum.cloud.ibm.com/>

**Quantum Research:** <https://www.ibm.com/quantum/research>

# Quantum Computing Basics

