AWS re:Invent

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Using Julia to program quantum computers

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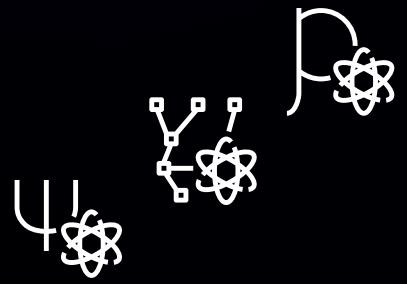
Quantum computing with Amazon Braket

A fully managed quantum computing service to help speed up scientific research and software development for quantum computing



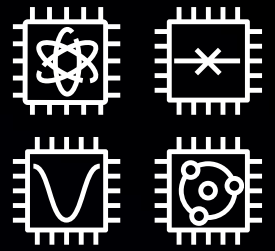
Build

- Managed Jupyter notebooks
- AWS CLI and preferred development environment
- Integrate multiple cloud services



Test

- Local simulators for rapid testing and debugging
- Fully managed, high-performance simulators for challenging simulations



Run

- Access multiple quantum computers on a single platform
- Combine quantum and classical resources with Amazon Braket hybrid jobs



Analyze

- Monitor status change events in near-real time
- Capture API calls and event history
- Analyze algorithm results and performance

aws

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Why use the Julia programming language?

- New language for technical computing
- Increasingly popular in academia and industry
- You can write prototyping and production code in one language
- Julia is an emerging language in finance, high-performance computing, machine learning, and optimization

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