QHG21: Awards & Celebration

Congratulations! You did it!

20 final projects were submitted for judging and community voting – it was tough choices all around!

Meet the Judges

Qiskit

Abby Mitchell

Developer Advocate

IBM Quantum

Jack Woehr

IBM iDeveloper

Absolute Performance, Inc.

Qiskit Advocate

IBM Champion 2021

Marcel Pfaffhauser

Community & Education

Developer

IBM Quantum

Judging Criteria

20%
Originality and Uniqueness

Compared to what you've seen before, how unique is this project? How much does it challenge the assumptions of classical computing? How interesting do you find it?

20%
Technical Complexity

Does this project explore deep technical issues?

20%
Educational Value

Will this project spark interest and get others involved in quantum? Will this project help others learn and understand quantum computing?

20%
Usability by Users

Will other people be able to use this project? Was the project thoughtful in how it was designed? Can you picture yourself helping build this code further? Is the code clear?

20%
Presentation

Did the team represent their project well? Was the team able to explain why they made certain decisions?

Honorable Mentions

It's always hard to choose just TWO projects, when there are so many amazing ones. Some of them still stand out, and we want to recognize them.

Honorable Mentions

Qiskit

Visualizing Quantum Walks on Graphs

"I like this approach! Making something more accessible (also for learners) by improving the tools to visualize it... This may not be "break through science" but a tool helping science (and students), and I just like that this project is quite a bit different."

- MP

VIEW PROJECT ONLINE

Anomaly Detection & Density Estimation with Density Matrices

"Interesting application of quantum processing to substantial real-world problem. Nicely executed."

- JW

VIEW PROJECT ONLINE

Community Choice

Based on the votes from fellow Qiskitters in the hackathon, the Community Choice award winners will be receiving an award plaque and the general recognition of their peers.

Qiskit

Quantum C2C

"Project is significant in its fluid employment of quantum computing."

- JW

"Good presentation consistent visual design, important parts being explained. It also looks like it is easy to use."

- MP

"Great Idea!"

- Comments

THE PROJECT: DEEP LEARNING FOR COMPRESSION OF CLASSICAL DATA IN QUANTUM COMPUTING

TEAM MEMBERS: CHIH-HAN HUANG, SUMITRA PUNDLIK, VARDAAN SAHGAL, TATHAGATA MAJUMDAR, KHUSHWANTH KUMAR RAGAM

Quantum C2C

VIEW PROJECT ONLINE

Second Place

The second place team, selected by our judges, will be receiving a custom Qiskit Hackathon trophy along with an "Upgrade Your Space!" Qiskit peripheral set!

Second Place

QAOA in the Field of Smart Charging Vehicles

"Excellent example application of quantum combinatorial optimization applied to a real-world problem. Professional quality presentation values both technically and visually."

- JW

THE PROJECT: IMPLEMENT A SIMPLE FORM OF SMART CHARGING BY USING A QUANTUM APPROXIMATE OPTIMIZATION ALGORITHM (QAOA) IN QISKIT.

TEAM MEMBERS: FRANZISKA WILFINGER, KEVIN SHEN, CATHARINA BROOCKS, JAKOB PFORR, JEZER JOJO

VIEW PROJECT ONLINE

First Place

The first place team, also selected by our judges,
will be receiving a custom Qiskit trophy along with a
$1,000 prize for each team member!

First Place

# Quantum Neural Networks for State Discrimination

"Intersection of quantum computational science with an interesting problem in quantum physics."

- JW

THE PROJECT: IMPLEMENT AND TRAIN A QUANTUM NEURAL NETWORK BASED ON GENERALIZED MEASUREMENTS TO DISCRIMINATE NON-ORTHOGONAL STATES.

TEAM MEMBERS: LUCIANO PEREIRA, RAFAEL GONZÁLEZ LÓPEZ, RUBÉN ROMERO-GARCÍA, MIGUEL ÁNGEL PALOMO, ALEJANDRO BRAVO DE LA SERNA
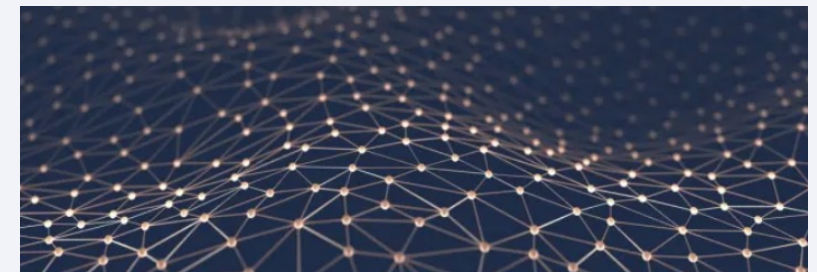
VIEW PROJECT ONLINE

What's Next?

Your projects are online and will be hosted on the hackathon site so that you can share with friends, colleagues, and your networks – they are now available to the public!