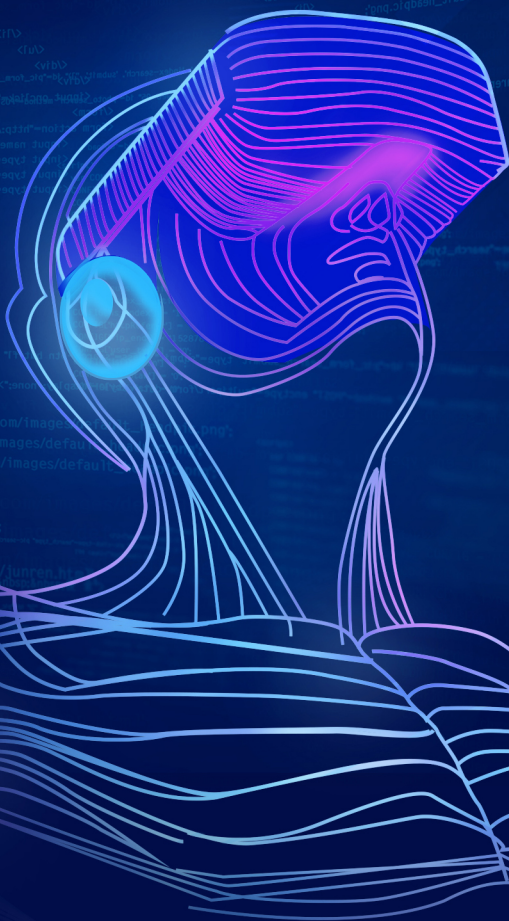


本源量子

量子计算『沉浸式』体验设备

QUANTUM COMPUTING IMMERSIVE
EXPERIENCE DEVICE



本源量子
ORIGIN QUANTUM

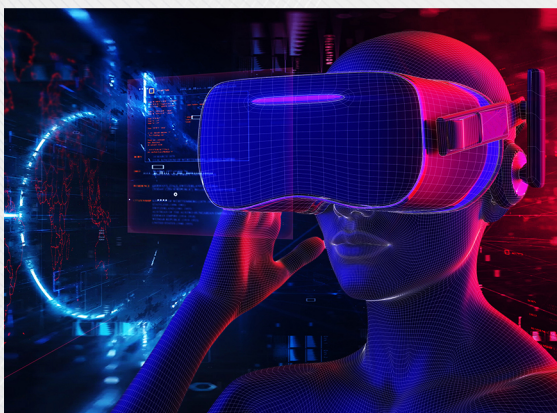
1

PRODUCT PRESENTATION

产品介绍

By introducing VR technology and matched teaching resources, this product builds a highly realistic quantum computing training teaching environment in the virtual reality space, and provides users with a new kind of immersive quantum computing teaching experience.

The product solves the problems faced in the practical training teaching of quantum computing related majors, such as difficulty in application management, difficulty in opening and sharing, high training cost, low fault tolerance rate, and large operation risk. Moreover, it can provide reliable, safe and economic training projects for high-risk or extreme environments, unreachable or irreversible operations, high cost, high consumption, large or comprehensive training. The use of virtual reality technology to control the total cost of teaching equipment, provide virtual simulation teaching and practical training needs support in line with professional talent training, at the same time stimulate the enthusiasm and creativity of students and teachers, and propose new teaching methods and approaches for teachers.



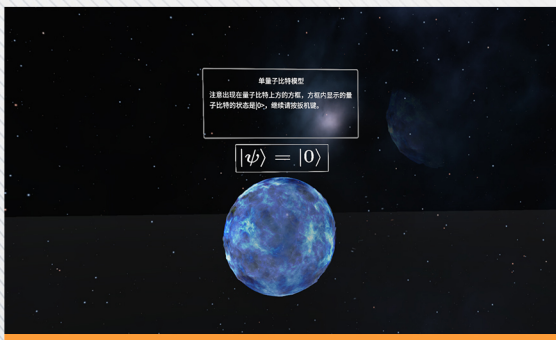
🌀 Qubit Simulator

The QubitSimulator application aims to introduce users to the evolution and superposition of quantum qubit states, mainly through the "Bloch sphere" visual effect. QubitSimulator contains two sub-applications. Quantum State Evolution mainly introduces an abstract visual model of quantum qubit to users. The other is to build quantum circuits to show how quantum states evolve as logic gates operate.



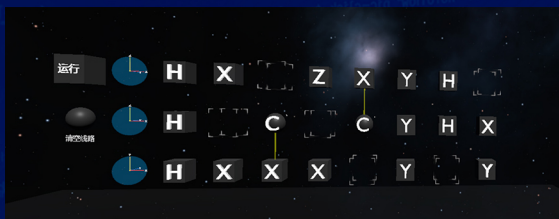
• Quantum state evolution

In this visual model, a qubit is represented as a glowing "sphere", which is invisible in reality. The color of the sphere is a linear combination of "blue" and "red", reflecting the basic probability that a quantum state collapses to a "0" or "1" state, respectively. Moreover, the state equation of the Bloch sphere is shown in the application so that the user can make a conceptual connection between the physical formula and the visual model.

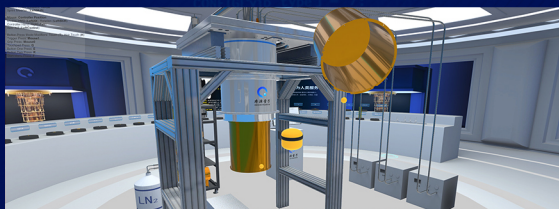


- **Quantum circuit construction**

Unlike traditional quantum computing circuits, this application mainly shows the state evolution of quantum qubits when running quantum circuits, and users can clearly and intuitively understand the effect of logic gates. By constructing different combinations of quantum logic circuits in the virtual space, it can enhance learners' cognition and satisfy diverse teaching needs.



◎ QC Engineer



A quantum computer is a physical system capable of storing and processing information represented by quantum qubits. The main technical routes of quantum processors include superconductivity, ion traps, silicon-based semiconductors, optical quantum, etc., showing a diversified trend. Currently, superconducting quantum computing is considered by the industry as one of the potential paths towards achieving universal quantum computing.

QC Engineer application is mainly to cultivate students' understanding of the structure of superconducting quantum computer, familiarize them with some basic components, and be able to build and assemble a superconducting quantum computer by hand. At the same time, develop good instrument operation habits in the process of virtual training. It provides a quantum computer model of equal scale, which solves the problem of large volume and space occupation of real quantum computers. Other model groups are exquisite in technology, and the products are realistic and delicate, allowing users to get a intuitive understanding of quantum computers and their accessories.



PRODUCT SUPERIORITY

产品优势



■ Visualization of quantum qubit models

■ Full demonstration of quantum state evolution



■ Scaled model of superconducting

■ Support for multi-player cooperation mode



■ Intelligent interactive design

■ Large view background experience



■ The first product in China to bring quantum computing into virtual reality space



Origin Quantum Computing Technology (Hefei) Co., Ltd.

No. 900, Wangjiang West Road High-tech Zone, Hefei, Anhui, P.R.China,
No.2800 Innovation Avenue, High-tech Zone, Hefei, Anhui, P.R.China.
Tel: 0551-6383 6038 Web: www.originqc.com.cn