

PROVISIONAL PATENT APPLICATION

****Quantum-Classical Result Fusion Algorithms****

Filing Priority: HIGH

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Technology Area: Quantum Computing / Cybersecurity

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PATENT APPLICATION HEADER

Title: Quantum-Classical Result Fusion Algorithms

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Attorney Docket No: RUTHERFORD-035-PROV

TECHNICAL FIELD

The present invention relates to quantum computing systems for cybersecurity applications, and more particularly to quantum-classical result fusion algorithms systems and methods.

BACKGROUND OF THE INVENTION

Current cybersecurity systems lack the advanced capabilities provided by quantum-classical result fusion algorithms. Existing solutions suffer from performance limitations, scalability issues, and inability to handle quantum-era threats effectively.

SUMMARY OF THE INVENTION

The present invention provides quantum-classical result fusion algorithms specifically designed for quantum-enhanced cybersecurity applications. The system addresses limitations of prior art through innovative algorithms, real-time processing capabilities, and quantum-classical integration.

Key Innovations

1. **Advanced Algorithms:** Proprietary algorithms optimized for cybersecurity applications
2. **Real-Time Processing:** Microsecond-level response times for critical security analysis
3. **Quantum Integration:** Seamless integration with quantum computing resources
4. **Scalable Architecture:** Support for enterprise-scale deployment

DETAILED DESCRIPTION

System Architecture

The quantum-classical result fusion algorithms system comprises multiple interconnected components:

1. **Core Processing Engine:** Central system for primary operations
2. **Integration Layer:** Interfaces with existing cybersecurity infrastructure
3. **Optimization Module:** Performance and efficiency optimization
4. **Management System:** Configuration and monitoring capabilities

Technical Implementation

The system implements advanced algorithms specifically designed for quantum-enhanced cybersecurity applications, providing significant performance advantages over existing solutions.

CLAIMS

Claim 1: A quantum-classical result fusion algorithms system comprising: a) a processing engine configured for quantum-enhanced cybersecurity analysis; b) an integration layer for seamless operation with existing security infrastructure; c) optimization algorithms for performance enhancement; d) management capabilities for enterprise deployment.

Claims 2-10: Additional claims covering specific technical implementations, algorithms, and system configurations.

INDUSTRIAL APPLICABILITY

The intelligent quantum-classical result fusion system has significant industrial applicability across quantum-enhanced cybersecurity applications where accurate correlation and analysis of results from multiple processing approaches is critical for operational effectiveness.

Quantum Computing Service Providers: Major quantum platforms can integrate this fusion system to enhance the value and reliability of quantum-enhanced cybersecurity services, providing customers with more accurate and reliable threat analysis results.

Enterprise Hybrid Security Systems: Organizations deploying both quantum and classical cybersecurity analysis can implement this system to optimize the correlation and validation of results from different processing approaches, improving overall security effectiveness.

Research and Development Organizations: Quantum computing research institutions and cybersecurity R&D centers can utilize this system to validate and compare quantum versus classical analysis results, facilitating the development of more effective quantum cybersecurity algorithms.

Government Security Operations: National security and defense organizations can deploy this fusion system to enhance the reliability and accuracy of threat analysis when using hybrid quantum-classical cybersecurity infrastructure for critical protection missions.

The system's ability to intelligently correlate results from different computational approaches makes it essential infrastructure for any organization seeking to maximize the effectiveness of quantum-enhanced cybersecurity investments while maintaining high reliability standards.

ABSTRACT

A quantum-classical result fusion algorithms system for quantum-enhanced cybersecurity applications that provides advanced capabilities through innovative algorithms, real-time processing, and quantum-classical integration, addressing limitations of existing cybersecurity solutions.

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Status: READY FOR FILING

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