Quantum AI Systems: Theory, Architecture, and Applications

Overview

Quantum AI Systems: Theory, Architecture, and Applications presents a rigorous, system-level framework for integrating quantum computation with artificial intelligence in deployable, governable architectures.

Rather than treating quantum computing as an isolated accelerator, the book introduces Quantum AI Systems (QAIS™) as a system-of-systems discipline in which interference, constraint, and measurement shape learning, inference, and control.

A central contribution is the dual evaluative frameworks of QALIS™ and CRQC–LLM™, which demonstrate how identical mechanisms can yield resilient or fragile system behavior depending on architectural governance.

Designed for students, researchers, and professionals, the book bridges foundational quantum principles with next-generation AI system design, emphasizing verification, security, and operational integrity.

Key Themes

• Operational view of quantum behavior (process, constraint, and resolution) • Hybrid quantum–classical architectures and interfaces • Verification and governance across the QAIS stack • Resilience analysis via QALIS™ vs. CRQC–LLM™

Author: Dr. Joe Wilson
Publisher: QuSciTech Press
Website: https://www.quscitech.com
Amazon Preorder: https://www.amazon.com/dp/B0GLJDW3QM