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| Book Name: | **Post-Quantum AI: Building Secure Machine Learning Systems in the Quantum Era** |
| Manuscript Number: | **Ms\_BPR\_6323** |
| Title of the Manuscript: | **Post-Quantum AI: Building Secure Machine Learning Systems in the Quantum Era** |
| Type of the Article | **Complete Book** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This manuscript addresses a critical and emerging topic at the intersection of artificial intelligence, cybersecurity, and quantum computing. As quantum capabilities pose real threats to existing cryptographic systems, the work highlights the need for quantum-resistant approaches to safeguard machine learning models. The book provides an extensive overview of concepts, methods, ethical considerations, and case studies, making it valuable for both researchers and practitioners. It contributes to the ongoing global discussion on building resilient AI systems capable of operating securely in the quantum era. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | Yes, the title is suitable, clear, and informative. It reflects the scope and main focus of the manuscript. |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract is generally comprehensive and introduces the context well. However, it could be improved by:   * Presenting key contributions more clearly in bullet-like flow (e.g., scope of coverage: cryptography, ethical considerations, adversarial ML). * Adding a sentence summarizing the main practical implications for industry and research. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript is scientifically sound, well-referenced, and logically structured. Concepts like post-quantum cryptography, adversarial ML, explainable AI, and ethical implications are addressed thoroughly. Some sections are slightly repetitive (e.g., explanations of superposition/entanglement and their role in AI security). Streamlining these would improve readability. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | The references are recent and sufficient, with multiple citations from 2020–2023 included. A few additional references from the latest **NIST PQC standardization results (2022–2023)** could strengthen the discussion on post-quantum algorithms. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Overall, the language is understandable but somewhat informal in tone at times (e.g., use of phrases like “you see,” “pretty cool,” “super important”). For a scholarly book, the language should be polished to maintain academic formality. Minor grammatical and typographical inconsistencies are present and should be revised. |  |
| Optional/General comments |  Figures and diagrams mentioned in the text should be carefully checked for consistency and proper captions.   The manuscript would benefit from a dedicated “Conclusion and Future Outlook” chapter summarizing challenges and research directions.   Consider reducing redundancy by merging overlapping explanations in early chapters. |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | The manuscript identifies ethical concerns such as privacy, bias, and transparency in post-quantum AI, which is appropriate. No additional ethical issues are evident. |  |

**Reviewer details:**

**Ripalkumar Patel, USA**