

Review Form 1.7

Journal Name:	Asian Journal of Research in Computer Science
Manuscript Number:	Ms_AJRCOS_119589
Title of the Manuscript:	Examining Machine Learning Strategies in Quelling Cyber Security Threats
Type of the Article	Review Article

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><u>Compulsory</u> REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>This manuscript addresses a critical issue in contemporary society: cyber security. By exploring machine learning (ML) strategies for combating cyber security threats, it provides valuable insights into how advanced technologies can be leveraged to enhance security measures. The topic is highly relevant given the increasing frequency and sophistication of cyber-attacks. The systematic review of secondary data and the thematic analysis provide a robust foundation for the conclusions drawn, making this study a significant contribution to the field of cyber security and artificial intelligence.</p> <p>The title is correct, but changing "Examining" to "Discussing" would be more appropriate since the paper does not include comparisons or tests. This change better represents the content.</p> <p>The abstract of the manuscript "Examining Machine Learning Strategies in Quelling Cyber Security Threats" effectively outlines its objective to explore ML strategies for cyber security. It details the methodology using secondary data with systematic, thematic, and qualitative analyses. The findings emphasize ML's capabilities in early threat detection, rapid data analysis, and real-time processing. The conclusion affirms ML's potential in real-time threat response, pattern recognition of malicious behaviour, and overall enhancement of internet security.</p> <p>The manuscript's subsections and structure require reworking, as detailed in the optional / general comments sections.</p> <p>The manuscript appears to be scientifically correct. It accurately describes the capabilities and applications of machine learning in detecting and preventing cyber security threats. The arguments are well-supported by references to existing literature, and the conclusions are logically derived from the presented data and analyses. However, a more detailed explanation of the methodology used for the systematic review and thematic analysis would strengthen the scientific rigor of the study.</p> <p>The references cited in the manuscript are both sufficient and recent, covering a range of relevant studies from 2011 to 2023. This indicates that the authors have thoroughly reviewed the current state of research in the field.</p>	
<p><u>Minor</u> REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language quality of the manuscript is generally suitable for scholarly communication. The writing is clear, formal, and adheres to academic standards. However, there are occasional grammatical errors and awkward phrasings that could benefit from further proofreading. Improving these minor issues would enhance the overall readability and professionalism of the manuscript.</p>	
<p><u>Optional/General</u> comments</p>	<ul style="list-style-type: none"> • The current citations are in APA or MLA style, which makes cross-referencing time-consuming. If possible, converting the citations to IEEE style would greatly aid in cross-referencing. • The objectives need to be clearly stated to ensure consistency between the abstract and the main body, aligning the content with the title. • The subheadings are ambiguous and need to be more precise and specific. For example, "Theoretical Framework" and "Machine Learning and Cybersecurity" sound like broad 	

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	<p>chapter titles rather than focused subheadings. These should be refined, such as changing "Machine Learning and Cybersecurity" to "Combating Security Challenges with Machine Learning" or something along those lines, to improve clarity and organization.</p> <ul style="list-style-type: none">• The paper lacks clarity and proper structure, causing it to be disorganized. Solutions are mentioned in the Issues section, and the National Cyber Security Concerns section seems redundant. Advantages of ML appear both in the ML and Cyber Security section and in the Advantages & Disadvantages section. Additionally, ML technologies are discussed throughout multiple sections. I believe, this disorganization stems from unclear objectives and needs to be fixed.• The paper lacks diagrams and graphs that could enhance its clarity. Adding explanatory diagrams to the theoretical framework and summarizing data in the issues and trends section with graphs would make the content more understandable and engaging.• The discussion on using ML to combat cyberthreats primarily focuses on APT-related threats and XSS attacks, but overlooks other significant threats like malware campaigns, ransomware, scams, and deepfakes. To be comprehensive, the paper should cover how ML can enhance defence against a broader range of cyberthreats beyond just XSS and APTs.• The discussion on ML and XSS attacks lacks details on the specific ML algorithms used and their applications. Although many algorithms are mentioned in the advantage section, it is disorganized and doesn't explain how they address cybersecurity threats. Including this information is necessary for clarity.	
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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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