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| Journal Name: | Journal of Basic and Applied Research international |
| Manuscript Number: | Ms_JOBARI_12700 |
| Title of the Manuscript: | Combining Supervised and Semi-Supervised Models to Enhance Personalized Education |
| Type of the Article | Short communication |

PART 1: Comments

| | Reviewer's comment | Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
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| 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. | The manuscript introduces a new method that combines supervised and semi-supervised machine learning to improve personalized education. It uses Random Forest to categorize students based on their performance and Graph Neural Networks to understand relationships in educational data. This approach significantly enhances prediction accuracy and addresses different learning needs by utilizing both labeled and unlabeled data. The research suggests that further development and real-time data integration could make this method even more effective in larger educational settings. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The original title suits this manuscript, but we must refine it to enhance its appeal and specificity. Here's a suggestion: "Enhancing Personalized Education through the Synergy of Supervised and Semi-Supervised Learning Models" This alternative title emphasizes the collaborative aspect of the models and their specific application to personalized education, which may attract more interest from the academic community | |

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| <p>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.</p> | <p>The abstract of the article effectively summarizes the research on how supervised and semi-supervised machine learning models enhance personalized education. To improve it, the methodology could be clarified by briefly explaining how Random Forest and Graph Neural Networks (GNN) work together, which would help readers grasp the innovative methods used. Additionally, including specific metrics or percentages related to the noted improvements in prediction accuracy and learning personalization would provide a clearer understanding of the framework's effectiveness. The abstract could also benefit from discussing the broader implications of the findings on future educational practices or policies, making the study relevant to a wider audience. Finally, mentioning any limitations or areas for future research would offer a more balanced view and encourage further exploration in this field. Incorporating these suggestions could enhance the abstract's clarity and depth, making it more informative for readers interested in the intersection of machine learning and education.</p> | |
| <p>Is the manuscript scientifically, correct? Please write here.</p> | <p>The manuscript demonstrates scientific correctness through its methodology, data use, and acknowledgment of future research directions, making it a valuable contribution to the field of personalized education.</p> | |
| <p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> | <p>The current contexts do not provide specific references; including recent and relevant citations is essential to support the paper's claims and findings, enhancing its credibility and depth.</p> | |

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| <p>Is the language/English quality of the article suitable for scholarly communications?</p> | <p>The language quality of the manuscript is appropriate for scholarly communications, characterized by clarity, technical accuracy, structured presentation, and coherent conclusions. These elements contribute to its suitability for an academic audience.</p> | |
| <p><u>Optional/General</u> comments</p> | <p>The manuscript makes a valuable contribution to personalized education through machine learning. However, some minor revisions are suggested to improve clarity and address the identified areas for enhancement.</p> <ul style="list-style-type: none"> ➤ The manuscript presents a new framework that combines supervised and semi-supervised machine learning models to improve personalized education, which is an important contribution to the field. ➤ The use of Graph Neural Networks (GNNs) and Random Forest (RF) algorithms shows a smart way to use different machine learning techniques to enhance prediction performance. This combination is effective in capturing complex relationships in educational data. ➤ The framework was tested on a real educational dataset, showing significant improvements in prediction accuracy and personalized learning compared to traditional methods. This real-world evidence supports the manuscript's claims. ➤ While the results are encouraging, the manuscript notes that there is room for further improvement by exploring advanced model designs and tuning parameters. It also emphasizes the need to try different data preparation methods and include specific knowledge from the education field, suggesting that the work can be refined. <p>The manuscript is generally well-organized, but some parts could be clearer, especially in explaining the methods and results so they are easier to understand for a wider audience.</p> | |

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> |
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| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |

Reviewer Details:

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| Name: | A. Suresh |
| Department, University & Country | SRM Institute of Science and Technology, India |