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Multitasking and its Prognostic Process for a Exceptional Solution

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ABSTRACT—

It sounds like you have developed a model using an adaptive boosting algorithm to efficiently solve multiple tasks simultaneously, particularly in the field of biopharmaceuticals. The model combines both classification and regression techniques, with a focus on classification for greater accuracy. The evolutionary multitasking approach has also been used to solve related optimization problems simultaneously. Boosting is an ensemble technique that involves combining weak classifiers to build a strong classifier. The model sequentially builds upon previous models to correct errors and improve accuracy. This approach can be useful for tasks that require multitasking and problem-solving, as it allows for efficient use of time and resources. Overall, it seems that your model has the potential to be a valuable tool in the biopharmaceutical industry for assessing disease severity and extracting accurate results through analysis. By incorporating multitasking and boosting techniques, you have developed an efficient and accurate solution to complex problems.

Keywords: Multitasking, Biopharmaceutical industry, Tablet, Adaptive boosting, Bio pharmaceuticals, classification, regression, accuracy, disease severity, analysis.

I. Introduction

This passage highlights the importance of utilizing machine learning techniques to solve complex problems, particularly in high-priority and high-value situations. Collecting, cleaning, organizing, and analyzing data is a time-consuming process, but it can lead to better decision-making and risk reduction. The adaptive boosting algorithm is a statistical technique that is well-suited for finding the best-fitting curve among data points and quickly calculating total error and stump performance. This allows for multitasking and the ability to solve multiple problems simultaneously, with the potential for useful information to be applied to future problems. In the pharmaceutical industry, this model can be particularly valuable for assessing disease severity and extracting accurate results through analysis. The ability to multitask using the adaptive boosting algorithm allows for more efficient problem-solving. The advancement of technology has made everything computerized, and managing multiple tasks and solving problems takes time and effort in any industry, particularly in pharmaceuticals

II. Literature review

[1]Cavazzuti, Marco"He informed usThis book is divided into two sections: an overview of optimisation theory and applications to guide readers throu gh the process of setting up optimisation exercise" Jan 2012.

[2] Glenn Maguire and Jean-Baptiste Mouret are told about "The QD algorithms can solve multiple tasks at once, but not when fitness needs to be evaluated separately. This paper proposes an extension of the MAP-Elites algorithm, Multi-task MAP-Elites, which outperforms the CMA-ES algorithm in both cases." 2020

[3] The clause describes a paper authored by Li Shuijia, Wenyin Gong, and Qiong Gu, “which reviews meta-heuristic algorithms used for extracting parameters of photovoltaic models. The authors evaluate these algorithms based on factors such as reliability, robustness, computational resources, and time complexity and provide recommendations for efficient parameter extraction to improve the performance, control, and design of PV cells. The paper is likely useful for researchers and practitioners working in PV cell design and optimization.”May 2021

[4] Chuan-Kang Ting and Abhishek Gupta et all; the authors are discuss about in this paper "Having standardized test problems in optimization research is essential, particularly for emerging fields like MTSOO. The report proposes nine test problems for MTSOO, each requiring simultaneous optimization of two single-objective tasks with varying relationships between them. These problems will provide a comprehensive evaluation of MFO algorithms, enabling researchers to compare algorithm performance, identify strengths and weaknesses, and develop new and improved algorithms. The proposed test problems have the potential to inspire researchers to advance the field of MTSOO." June 2017.

[5] Rohitash Chandra and Yew Soon Ong and also Chi-Keong Goh these authors are told about "The clause discusses a novel approach for multi-step time series prediction that integrates multi-task learning and cooperative coevolution techniques. The authors propose a network architecture with

predictive recurrence to capture knowledge from previous states for future predictions. The proposed method outperforms baselines in terms of generalization performance. The integration of multi-task learning and cooperative coevolution has potential implications in various domains such as finance, healthcare, and transportation." Neurocomputing March 2017.

[6] Liang Feng and Zexuan Zhu et all; "We propose a novel evolutionary multitasking algorithm (EMA) to optimize multiple VRPHTOs simultaneously with a single population. Empirical studies show that the employment of occasional drivers can significantly reduce routing cost and improve optimization performance." IEEE Trans cybern Jun 2021

[7] Kavitesh Kumar Bali and Yew Soon Ong they are told in this paper presents "A cognizant evolutionary multitasking engine for multi-objective optimization, which learns inter-task relationships and adapts genetic transfers based on overlaps in probabilistic search distributions, improving the efficiency and accuracy of multitasking in AI systems." March 2020.

[8] Liang Feng et all; These authors discuss about the paper "Evolutionary multitasking is a new paradigm in optimization and evolutionary computation that allows for implicit genetic transfer and accelerated convergence for complex optimization functions." volume 20 June 2016.

[8] Carlos A. Coello Coello and Antonin Ponsich "This paper presents a survey on the application of multiobjective evolutionary algorithms (MOEAs) to solve complex financial and economic problems. The survey covers the state-of-the-art research in this area and provides a taxonomy that distinguishes between portfolio optimization problems and other applications in the field. The paper highlights the increasing interest in this research area and identifies potential paths for future research." IEEE June 2013.

III. Study's Objectives

- The benefits of focusing on a single task while accomplishing multiple tasks through the use of machine learning techniques.
- Binary classification can be used to determine if something is good or bad in various fields, while machine learning can suggest the most effective medicine in the pharmaceutical industry. Additionally, machine learning algorithms can be applied to build processes with better accuracy, improving productivity and reducing waste.
- By utilizing these technologies, we can achieve higher accuracy, save time, and reduce the likelihood of adverse effects.

IV. STATEMENT OF THE ISSUE

- Multiple optimization's tasks are solved simultaneously in the current system. In recent years, developmental multimedia has been proposed to solve multiple problems and related optimization's problems simultaneously in order to perform multiple instance optimization's.
- To deal with data in this model, they proposed an evolutionary framework, a linear combination known as multitask capability programming, and a machine learning gradient descent algorithm. This model optimization's a variety of tasks; biological evolution automation has been proposed to solve a variety of different but related optimization's algorithms.
- They examine the gradient descent method in the current method. Gradient descent is an iterative method for optimizing's an objective function in this model so that we can easily predict the value and find the best accuracy. Training is extremely expensive due to the complexity of the data models.

V. Architecture Diagram

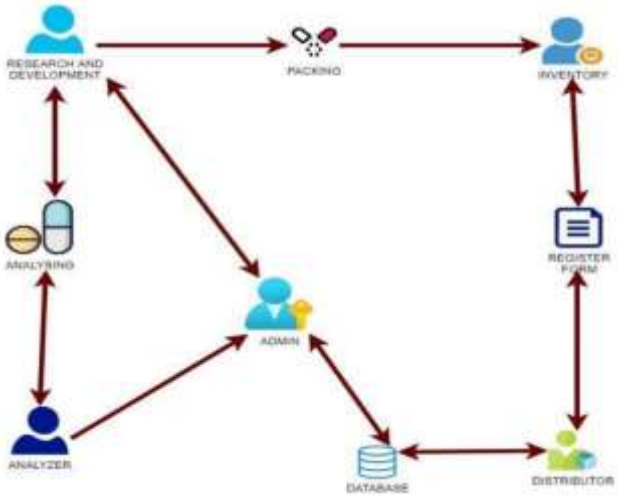
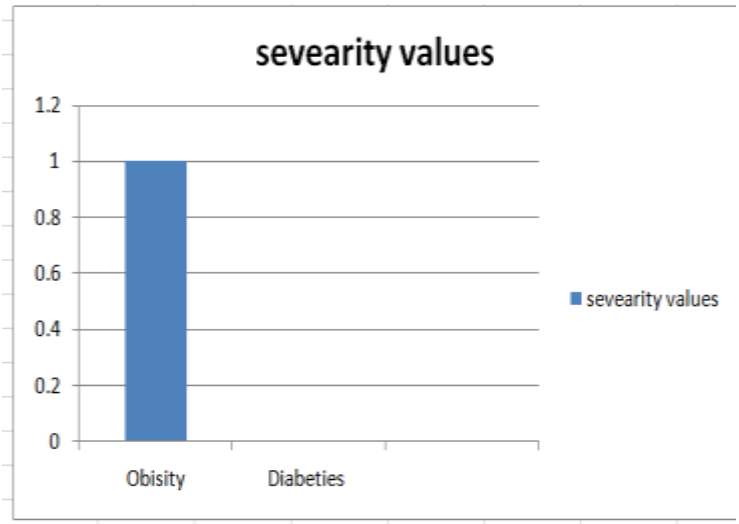


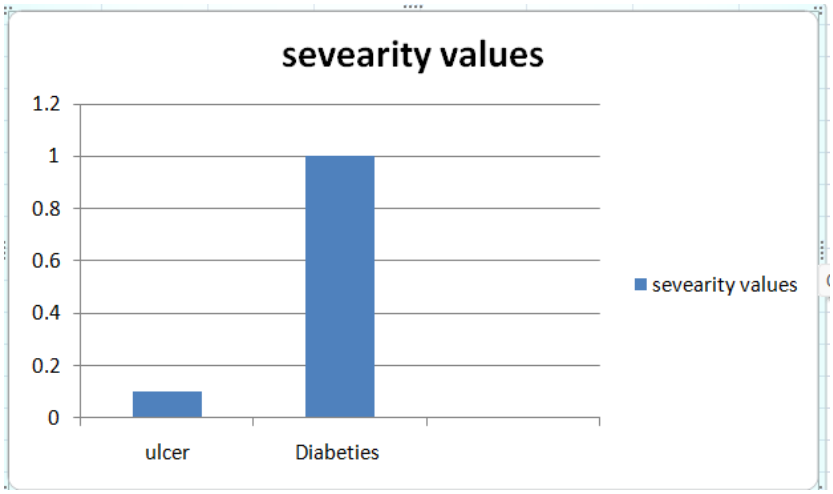
Fig1.1 System architecture

VI. Graph ploting

In this paper i used the Adaptive booster technique algorithim used in paper it was advanced then machine learning greadinet algorithm it give the accurate result in the formula. And also it generate many redundant unless weak classifiers



The above graph was ploted based on machinelearning gradient algorithm. It give the madicine rate 1 or 0



In this graph was ploted based on Adaptive boosting algorithm. It gives the accurate rate of the result and also it can take point value between 0 to 1.

The data sets are classified based on the patent disreaseand the multi taks of the tablet composition. If use the machinelearning algorithm it give the resul zero or one but I use the adaptive boosting algorithm it has result between zero to one or more value and also based on patent condition.

VII. FUTURE WORK

I agree that multitasking can be useful in both personal and professional settings, but it is important to recognize that there are limits to our ability to effectively multitask. In many cases, trying to do too many things at once can lead to burnout, decreased productivity, and increased stress levels.

It is important to prioritize tasks and focus on the most important ones first. This can help to ensure that we are using our time and energy effectively, and that we are not spreading ourselves too thin. Additionally, taking breaks and practicing self-care can help to prevent burnout and keep us motivated.

In terms of automating processes, there are many tools and technologies available that can help us to streamline our work and increase efficiency. For example, project management software, automation tools, and AI-powered systems can all help us to automate routine tasks and free up time for more strategic thinking and problem-solving.

Ultimately, it is important to find a balance between multitasking and focusing on individual tasks, and to use technology to our advantage in order to maximize our productivity and creativity.

VIII. Conclusion

This clause highlights the importance of utilizing machine learning techniques to solve complex problems, particularly in high-priority and high-value situations. Collecting, cleaning, organizing, and analyzing data is a time-consuming process, but it can lead to better decision-making and risk reduction. The adaptive boosting algorithm is a statistical technique that is well-suited for finding the best-fitting curve among data points and quickly calculating total error and stump performance. This allows for multitasking and the ability to solve multiple problems simultaneously, with the potential for useful information to be applied to future problems. In the pharmaceutical industry, this model can be particularly valuable for assessing disease severity and extracting accurate results through analysis. The ability to multitask using the adaptive boosting algorithm allows for more efficient problem-solving. The advancement of technology has made everything computerized, and managing multiple tasks and solving problems takes time and effort in any industry, particularly in pharmaceuticals.

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