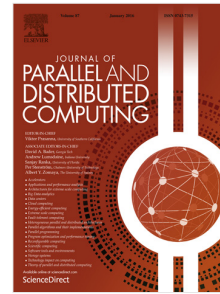


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An intelligent regressive ensemble approach for predicting resource usage in cloud computing

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The main contributions of this research are summarized as:

- I. A framework is designed that predicts the cloud resource usage for a scientific application in distributed environment. This framework depicts the entire procedure followed for predicting the usage of resources.
- II. As the dataset is not readily available, an intensive experimentation is done by simulating cybershake on workflow management system in order to generate resource usage dataset.
- III. A meta-heuristic, Genetic Algorithm, based on greedy approach is used for selecting the relevant features. This reduces the size of data by eliminating the unimportant and redundant data.
- IV. A Regressive Ensemble Approach for Predicting (REAP) CPU usage of a scientific application is proposed. The proposed approach is evaluated under parallel and distributed environment. REAP improves the accuracy rate, reduces the execution time and error rate.

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