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(57) Abstract:

The present disclosure relates to a system and a method that includes one or more processors operatively coupled to a memory that execute a set of instructions to allocate resources provision with cascading. The system receives a plurality of resource allocation requests from a user, upon the receipt of the plurality of resource allocation requests. The system predicts future resource requirements based on an analysis of historical data, the future resource requirement indicating a type of resource, and a number of resources required to meet the future demands on the system, upon predicting the future resource requirements. Additionally, the system determines a cascading allocation strategy by optimizing dependencies between resources and the system and allocating resources to the user according to cascading allocation strategy. Further, the system track resource usage patterns for the allocated resources and provide real-time insights for efficient resource provisioning.

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