METHOD AND SYSTEM FOR DRIVING DYNAMIC OPTIMIZATION OF OPERATOR CHAIN BASED ON COMPUTE ENGINE MODEL

ABSTRACT

The present invention provides a method and a system for driving dynamic optimization of an operator chain based on a compute engine model, and relates to the technical field of drive engines. The method includes: constructing a multi-dimensional feature sensing network, acquiring an operation chain operation data, and training to generate an operator chain performance prediction model; constructing a hierarchical optimization decision mechanism based on the model, and triggering automatic operator merging according to an affinity coefficient in a strategy level; optimizing parallelism of the merged operators in an execution layer; generating a fine-grained resource allocation scheme in a resource level, so as to form an end-to-end optimization strategy; and after deploying, continuously optimizing a monitoring index weight by an adaptive performance monitoring module, activating a strategy tuning engine when the performance gain gradient attenuates, dynamically adjusting optimization parameters and synchronizing an optimization record to a knowledge graph, thus realizing adaptive evolution of the optimization strategy. According to the present invention, by multi-dimensional feature sensing, hierarchical optimization decision and adaptive performance monitoring, the operation chain execution efficiency and the resource utilization rate can be obviously improved.

Drawing accompanying abstract: Fig. 1