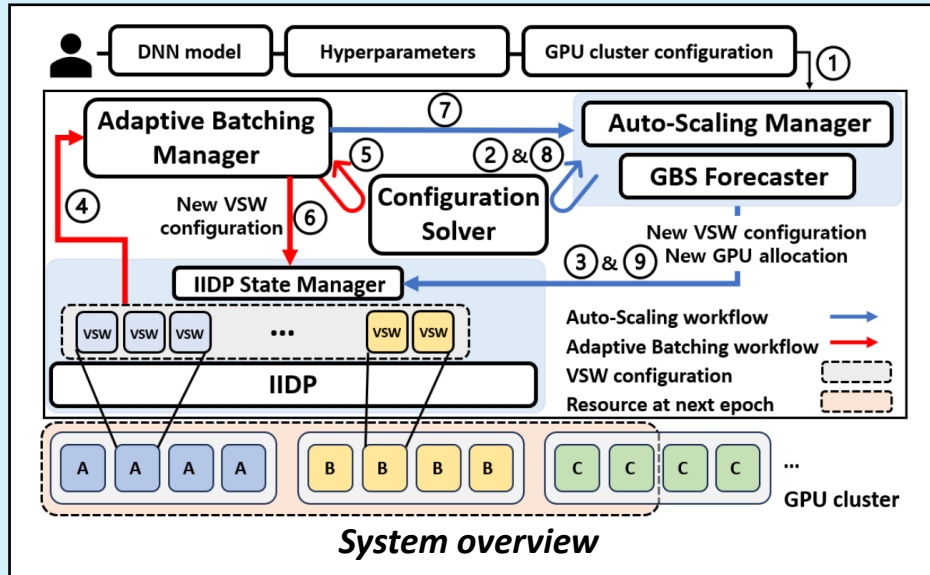


SSL's paper is accepted to EuroSys 2025!

JABAS: Joint Adaptive Batching and Automatic Scaling for DNN Training on Heterogeneous GPUs



We present **JABAS**, a novel **DNN** training system that combines **adaptive batching** and **automatic scaling** to accelerate training on **heterogeneous GPUs** without accuracy loss. Built on the IIDP framework, JABAS ensures the same theoretical convergence rate as distributed SGD. It dynamically adjusts batch sizes within an epoch and optimally scales GPU resources between epochs. Evaluated on **LLMs** and other DNNs, JABAS achieves **33.3% faster training** and **54.2% lower cost** than state-of-the-art adaptive training methods.



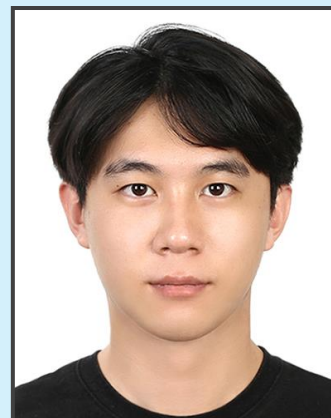
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