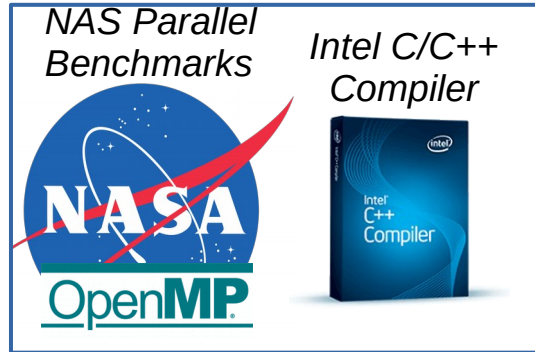


# Machine Learning Assisted Parallelism Discovery

(Learning to Predict Loop Parallelisability Property)

ML Training Labels



ML Model Training

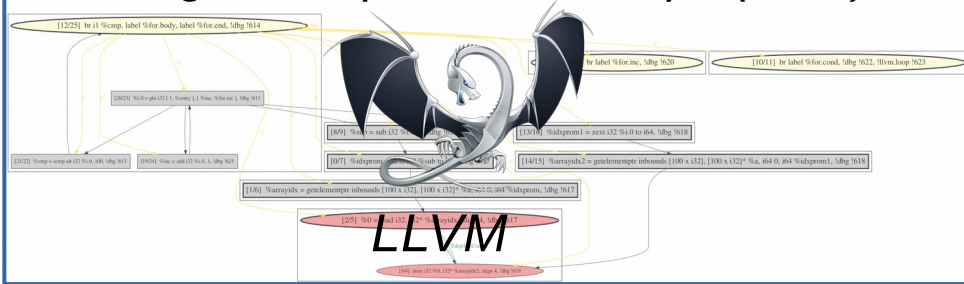


Parallel Loop Prediction



ML Features

Program Dependence Graph (PDG)



- Achieved **94%** (baseline **60%**) prediction accuracy
- Increased NAS Parallel Benchmarks available parallelism utilisation from 86% to 99%



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