

Parallel simulation of character recognition problems using NEUCOMP2

ABSTRACT

NEUCOMP2 is a parallel Neural Network Compiler for a shared-memory parallel machine. It compiles a program written as a list of mathematical specifications of Neural Network (NN) models and then translates it into a chosen target program which contains parallel codes. Performance results for character recognition problems on popular NN models are presented. The models are the backpropagation, Kohonen, Counterpropagation and ART1 network models. NEUCOMP2 was developed and run on the SEQUENT Balance 8000 computer system at PARC.

Keyword: Neural network compiler; NEUCOMP2; A shared-memory parallel machine; General purpose simulation tool; Backpropagation; Kohonen; Counterpropagation; ART1 networks; SEQUENT Balance 8000