Neuroevolution of Spiked Neural Networks With HyperNEAT

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Machine learning and neural networks have seen a rapid increase in popularity over the past few years. Spiked neuron networks (SNN) are a third generation neural network that offer many benefits compared to analog neural networks (ANN). While past work has used spikeprop or ANN conversion to train SNN, Daniel has researched an interesting alternative using evolutionary algorithms (EA) to train SNNs. This project uses Matlab to train SNNs with a specific EA called HyperNEAT in pursuit of creating a training method that can outperform more widely popular methods such as the ones listed above.

Awards Won: