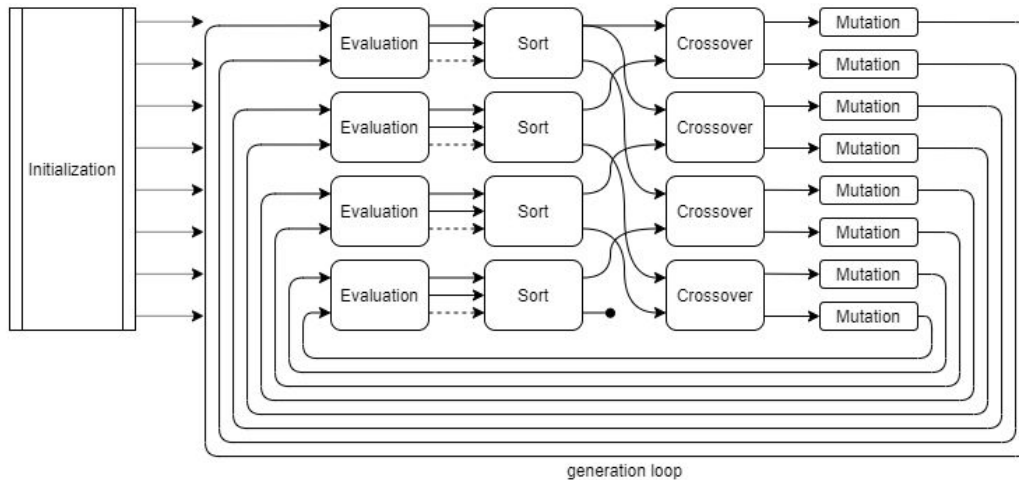


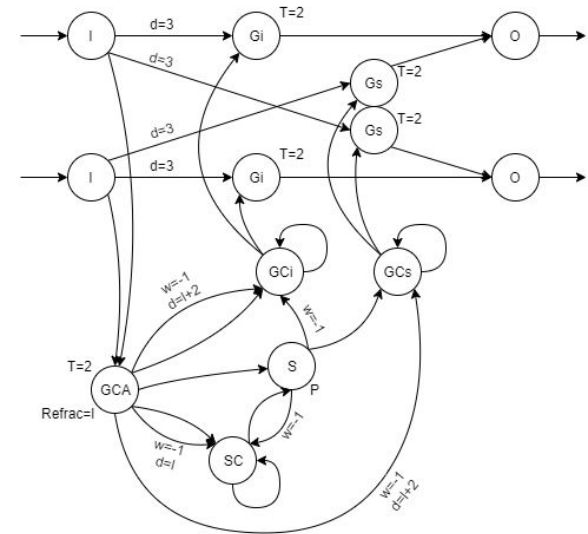
Spiking Neuron Implementation of Genetic Algorithms for Optimization

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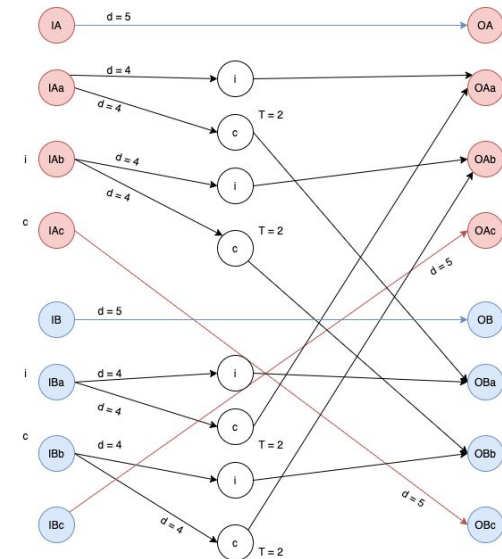
- Implement genetic algorithm as spiking neural network to run on efficient neuromorphic hardware
- Chromosomes represented as neural spike trains
- Processed by neural ensembles for *evaluation, selection (sort), crossover, mutation*



- Sequential design: each chromosome lies on single spike train processed over time
- Parallel design: each gene of a chromosome lies on a separate spike train processed concurrently



Sequential crossover ensemble



Parallel crossover ensemble