Overview of NEAT

- Genetic algorithm, which means it's predicated on finding the fittest neural network for a given problem

- Genes can be for nodes or connections, with mutations possible in both

- Set apart from other algorithms by a few factors

  - Historical marking, keeping a running track of where innovations occurred, so disparate topologies can be merged easily

  - Speciation, if two genomes have significant enough differences, they are considered different species, and unlike many algorithms competition is primarily *within* species, rather than *between* them

  - Structures are only evolved when necessary, unlike other algorithms which initialize several random structures at the start for the sake of topologic diversity