

Assignment #9

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The topic of this week lecture is A.I: Creative Mind Ltd.'s EvoM (Random Deep Networks based Evolutionary Automatic Music Composition System). Creative Mind wants to make artificial intelligence model that can compose like human. Creative Mind now has the A.I technology that can distinguish aesthetic music. Howard Gardner said that music intelligence is important parts of human's intelligence. EvoM: Evolutionary Music composition Intelligence uses Aesthetic Evaluator, Evolutionary Composer and Creativity Supplier. Music data has gathered by crowd sourcing, Amazon's Mechanical Turk. The men who have a job relative to music rate music's aesthetic score and the others rate music's popularity score. Random Deep Networks is one of core tech of EvoM. Sampling, Feature Vectors Extraction -> Multi Deep Neural Network Training -> Ensemble -> Automatically rate music's aesthetic score. Inputs of Random Deep Networks are Music raw data and feature that be picked from feature list. We extract selected features from music sheet data to create vectors. Partially Connected neural networks is parts of Time Reduction Layer. It reduces time dimension of music. Feature Reduction Layer reduces feature dimension. Finally output has only two neuron: aesthetic or not.