KEVAN: Kevan the Efficient Videogame-Playing Artificially Intelligent Neural Network

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Artificial intelligence is one of the fastest growing fields in the U.S. It can be used for anything from medicine to self-driving cars. An easy environment for an AI to learn in is a videogame. With enough training the AI should be able to complete a task successfully. To begin the experiment, write the code. This experiment uses code written by myself and OpenAI and NEAT repositories. Writing and learning about the repositories took about 3 weeks. I tested my genetic algorithm style AI on the first level of Sonic and Knuckles for the Sega Genesis. Testing took about a month and a half because NEAT needs a lot of fine tuning and time to run. The AI failed to complete the level many times and each time the NEAT configuration file was changed to get better results. The AI failed to complete the level, but with enough time it could, in theory, randomly choose the right values to make it advance. My computer does not have the processing power to run the program that long but I did run it until the AI could not get any farther in 3 weeks. AI that can solve problems on its own is a huge step forward in the technology field and can better the lives of many people.

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