Four years ago, I came across a post on *Ars Technica* unveiling to the public a short science fiction film, called Sunspring. The 9-minute movie directed by Oscar Sharp and starring Thomas Middleditch was presented at the Sci-Fi-London film festival’s *48h Challenge*. The premise of the Challenge is to produce a film containing a set of prompts (for example, props or dialogue lines), from scratch and in less than two days! However, none of these things actually caught my attention at the time. Instead, it was film-writer Benjamin that enticed me to click on the link. Benjamin is an AI bot, or specifically, a recurrent neural network called long short-term memory (LSTM) which was developed by New York University AI researcher Ross Goodwin.

LSTM is an artificial recurrent neural network architecture, which has feedback connections. This type of architecture gives it the ability to process sequences of data and makes it useful for video, speech or text recognition applications (more on this below!). In the case of Sunspring, Goodwin trained his algorithm with dozens of .txt files of sci-fi screenplays that were available online at the time. Once “turned on”, the algorithm boastfully named *itself* Benjamin before moving on to its designated task: to find patterns and tendencies in the sequences of letters, words and phrases from the training dataset. Over time, Benjamin learned to reproduce the structure of a screenplay, with its associated stage directions and character lines. “Ready” for the Challenge, Benjamin was fed with the following prompts from the Sci-fi London film festival as input:

* TITLE: Sunspring
* DIALOGUE: “It may never be forgiven, but that is just too bad.”
* PROP & ACTION: A character pulls a book from a shelf, flips through it and puts its back.
* OPTIONAL SCIENCE IDEA: In a future with mass unemployment, young people are forced to sell blood. … gave it a cup of really hot tea…

The result? Well, Benjamin provided hilarious stage directions such as “He is standing in the stars and sitting on the floor”, but I invite you to judge for yourself! Here’s the link to the original post:

<https://arstechnica.com/gaming/2016/06/an-ai-wrote-this-movie-and-its-strangely-moving/>

<https://en.wikipedia.org/wiki/Sunspring>

<https://en.wikipedia.org/wiki/Long_short-term_memory>