

MuseNET

IMANOL MARTÍNEZ

DAVID REVILLAS

A solid orange horizontal bar at the bottom of the slide.

Content

Related Works

- Magenta
- MuseGAN
- WaveNet

Technology Used

- GPT-2
- MuseNet

Demo

Conclusion

OpenAI



Related Works

Magenta

- Google
- Not only music

MuseGAN

- Polyphonic music
- From scratch or continuation

WaveNet

- Human-like sounds
- Wave modeling

Technology used

GPT-2

MuseNET

GPT-2

OpenAI

Generated Pre-Training 2

Text prediction

Unsupervised

Quite powerful

SYSTEM PROMPT
(HUMAN-WRITTEN)

In a shocking finding, scientist discovered a herd of unicorns living in a remote, previously unexplored valley, in the Andes Mountains. Even more surprising to the researchers was the fact that the unicorns spoke perfect English.

MODEL
COMPLETION
(MACHINE-
WRITTEN, 10 TRIES)

The scientist named the population, after their distinctive horn, Ovid's Unicorn. These four-horned, silver-white unicorns were previously unknown to science.

Now, after almost two centuries, the mystery of what sparked this odd phenomenon is finally solved.

Dr. Jorge Pérez, an evolutionary biologist from the University of La Paz, and several companions, were exploring the Andes Mountains when they found a small valley, with no other animals or humans. Pérez noticed that the valley had what appeared to be a natural fountain, surrounded by two peaks of rock and silver snow.

Pérez and the others then ventured further into the valley. "By the time we reached the top of one peak, the water looked blue, with some crystals on top," said Pérez.

Pérez and his friends were astonished to see the unicorn herd. These creatures could be seen from the air without having to move too much to see them – they were so close they could touch their horns.

While examining these bizarre creatures the scientists discovered that the creatures also spoke some fairly regular English. Pérez stated, "We can see, for example, that they have a common 'language,' something like a dialect or dialectic."

EXAMPLE

The 2008 Summer Olympics torch relay was run from March 24 until August 8, 2008, prior to the 2008 Summer Olympics, with the theme of “one world, one dream”. Plans for the relay were announced on April 26, 2007, in Beijing, China. The relay, also called by the organizers as the “Journey of Harmony”, lasted 129 days and carried the torch 137,000 km (85,000 mi) – the longest distance of any Olympic torch relay since the tradition was started ahead of the 1936 Summer Olympics.

After being lit at the birthplace of the Olympic Games in Olympia, Greece on March 24, the torch traveled to the Panathinaiko Stadium in Athens, and then to Beijing, arriving on March 31. From Beijing, the torch was following a route passing through six continents. The torch has visited cities along the Silk Road, symbolizing ancient links between China and the rest of the world. The relay also included an ascent with the flame to the top of Mount Everest on the border of Nepal and Tibet, China from the Chinese side, which was closed specially for the event.

Q: What was the theme?

A: “one world, one dream”.

Q: What was the length of the race?

A: 137,000 km

Q: Was it larger than previous ones?

A: No

Q: Where did the race begin?

A: Olympia, Greece

MuseNet

OpenAI too

10 different instruments

From scratch or continuation

Based on GPT-2

Sparse Transformer

Demos



GPT-2

Example 1

Hello there! We are David and Imanol and we are presenting you some text generation done by OpenAI's implementation for Advanced Techniques in Artificial Intelligence on Fall 2019. We are introducing you to a special algorithm known as Convolutional Neural Networks whose name may surprise you. In this short article, we will introduce many of the core features of this advanced algorithm as well as some of its advanced theoretical foundations. In the following, the convolutional part of the Neural Network will be used. Here are some of the main features of the algorithm:

Recurrent Neural Network: the convolutional part uses a series of recurrent layers. Each layer is composed of 4 neurons.

The first convolutional layer can contain a single, 1st neuron and a convolutional layer can contain 8 in the form of 2th, 3rd, 4th, 5th and 6th convolution neurons which are added at a later time. (The 5th convolutional neuron of the above series is just the last column of the convolutional layer. It's a placeholder that allows the reader to understand the meaning of the rest of

GPT-2

Example 2

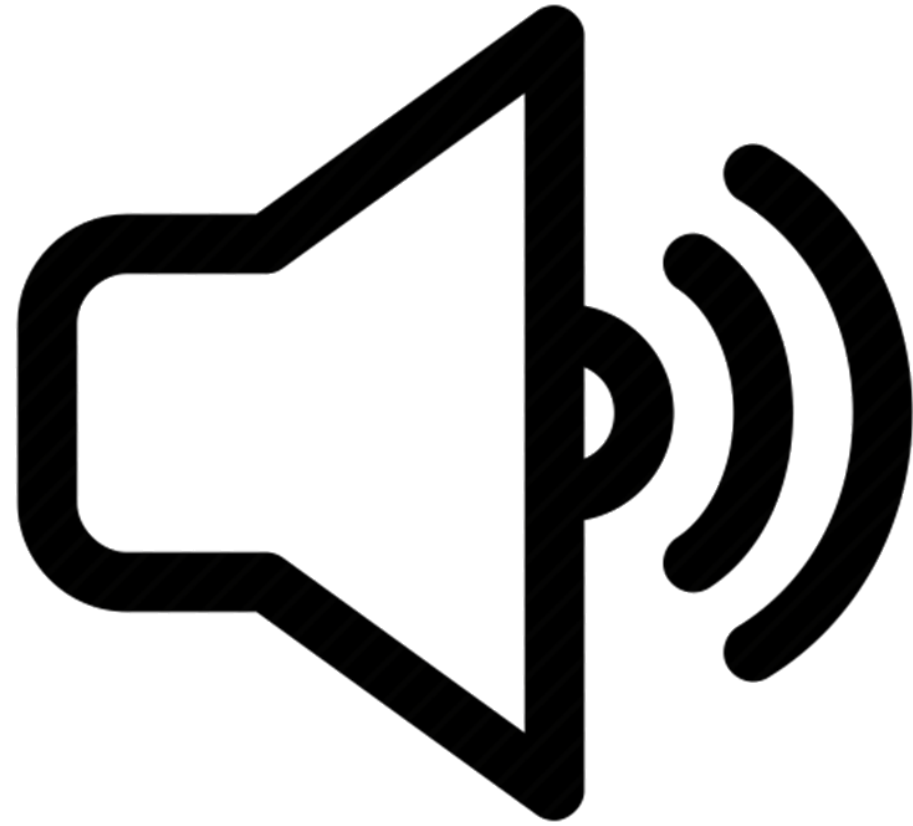
Hello there! We are David and Imanol and we are presenting you some text generation done by OpenAI's implementation for Advanced Techniques in Artificial Intelligence on Fall 2019. We are introducing you to the project in a short video (2mins) and we invite you to join us there.

Our text generation was developed via the machine learn project of the same name as a general purpose AI framework. The result of that project was Advanced Techniques in Artificial Intelligence. This project was developed to be able to find solutions to problems where machine learning is able to do a good job, but there are few algorithms that are good enough for solving the problem.

In OpenAI's case, the problem is to get you into the mind space, and in this case, we are going to try to get you into our head space (the part that can be represented by a picture).

On this platform, OpenAI created a number of AI frameworks that you can take into your own projects. From the basic techniques to more advanced ones.

MuseNET



Conclusions



Thank you for listening

Any questions?

