

Sources: https://github.com/rcc-uchicago/NLP_with_GPT3

I. Introduction

- a. *What is a transformer, and how does GPT-3 work?*
(API only @ present, GPT-2 is available on Midway)

"The GPT-3 Architecture, on a Napkin"
https://dugas.ch/artificial_curiosity/GPT_architecture.html
- b. *“masking” → iterative token prediction*

II. Using GPT-3 : Basics

- a. Logging in to OpenAI
- b. The OpenAI "Playground" UI
vs.
Running in Python or Curl with an API Key (“<>”)
- c. How the results are generated & an NSFW warning
- d. What all can GPT-3 do? Examples page:
<https://beta.openai.com/examples>

III. Generating Text from a Custom Prompt using GPT-3

- a. The 4 models: Ada, Babbage, Curie and Davinci
<https://beta.openai.com/docs/engines>
- b. Examples of Generative Text using each of the 4 "Engines" (models) :
<https://beta.openai.com/playground?model=ada>
- c. Generative text: Using custom parameters (temperature, Top P)

IV. Classification using GPT-3 <https://beta.openai.com/docs/guides/classifications>

- a. Sentiment analysis classification: Tweet Classifier
<https://beta.openai.com/playground/p/default-adv-tweet-classifier>

V. Summarization using GPT-3 <https://beta.openai.com/docs/examples/summarization>

- a. Default tl;dr Summarization ("Summarization for a 2nd-Grader"):
<https://beta.openai.com/playground/p/default-summarize>

VI. Chat (chatbots)

- a. Default chatbot
<https://beta.openai.com/playground/p/default-chat>

VII. Question-Answering (Q&A)

- a. Default Q&A
<https://beta.openai.com/playground/p/default-qa>

VIII. Translation: English to French

- a. Default translation
<https://beta.openai.com/playground/p/default-translate>

IX. Evaluating GPT-3 : Performance and Results

- a. Human-based evaluation (hand-coding)
- b. Programmatic evaluation (e.g. SQuAD) rajpurkar.github.io/SQuAD-explorer

X. GPT-3 and the Future of NLP / NLU