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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**