# Computer: Write Me A GHOST STORY

Using GPT-2 to Terrify You and Occasionally to Tell
You About Sparkling Wine



#### A Ghost Story Generator: What is it?

I built an NLP generator that can take in Victorian ghost stories and put out... something resembling Victorian ghost stories! Magic. Let's start it up!



#### NEED STORIES

- Where can I get Victorian ghost stories that I can (legally) use to train my model?
- Project Gutenberg!
- The Best Ghost Stories 27 stories (1 of which I chose not to use)
- Awesome <u>Gutenberg</u> package scrapes any text you want from Project Gutenberg. No NLP functionality, just scraping and cleaning.
- Formatting, formatting, formatting.



#### GPT-2: My Savior

- When I started this project, I was attempting to use BERT, RNN not so great.
- But then, on the horizon: OpenAl's new GPT-3!
- Couldn't use that. So, OpenAl's GPT-2!
- Generative Pre-trained Transformer: unsupervised transformer language model.
- 1558M true model, 1.5 billion parameters, >5 GB. Nope, can't use that
- 124M small model, 124 million parameters, 500MB. Perfecto
- How the heck do I use it?
- <u>Max Woolf's gpt-2-simple</u> wrapper and <u>Google Colab notebook</u>.
- WOW

#### If It's Real, I Can Make It A Website

- So, now I have a working model that generates Victorian ghost stories!
- But I want to show it off time for Flask!
- CSS: It's Difficult
- I have an app that works locally! Time to deploy: Heroku
- Oh no
- OH NO
- Welp, at least I can show y'all on my local computer!
- Let's see the story!

#### BEHOLD - A Home Page

# Victorian Ghost Story Generator

About this project Example Stories

Generate a gHoOoOoOsT story!

This may take a few moments - the computer has to think of a story!

#### BEHOLD - An About Page

### About this Generator

Home Example Stories

Hi! I'm Hilary Lawlor, and I built this generator in December 2020. It uses a pre-trained natural language processing model (GPT-2) that I fine-tuned with a bunch of Victorian ghost stories to write its own ghost story! Sometimes it makes sense, sometimes it's EXTREMELY dramatic, and sometimes it babbles about sparkling wine. But it wants to write some kind of a ghost story for you, so why don't you let it?

#### BEHOLD: Some Example "Stories"

# A Few Example Stories

Home About this project

Below, you'll find some example tidbits of the "stories" that my fine-tuned GPT-2 model has produced. Apparently, it is very interested in sparkling wine and occasionally very dramatic.

No, I do not know what a "workahogurt" is.

"I'm sure the next person to see me will feel the same love I feel for you. ."The little dog was still so tired from his breakfast that he had to be carried away by the appearance of several feet of water that seemed to relieve him of all ordinary exertions. The journey home was now over, and I felt sure that my servant was returning with two bottles of bitter wine and a jug of sparkling water. He had brought with him several curious bottles of wine—the standing—room—only bottles—that had been lost under the deluge two weeks ago in

# BEHOLD - It Wrote A "Story" Your Terrifing Story

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Catch 'em all, then. Thus having drawn his attention from the situation, he turned round and began galloping along the empty floor. The candles were still lit when he stopped at a turningpoint in the story. "This is the very place to shoot first," he said. "If you think I am going to spend a cold night in that house, I'll be first. No one knows how to make a first impression on him, so long as he keeps his hand out of his pocket." Frank took his arm and walked him down the empty trunks of the two-story house. "You are not going to make a first impression on him, are you?" said Baby Van Rensselaer. "You have not the nerve to make a first impression. If you had, I could be tempted to take you out; I shall regret that." Frank took his arm and walked him down the empty trunks of the house. "You are not only the best young writer in the city, but also the best murder-nerder. If you were to make an impression on him, I would say you were not worth the money. Write to me and

#### Questions?

