



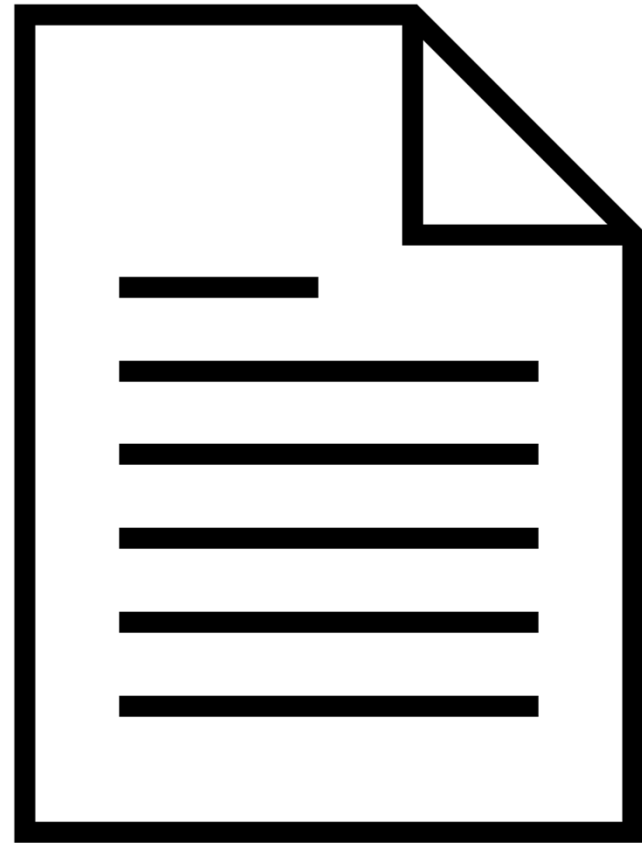
Text Generation

- Given a prompt, the model should complete it...
- Examples:
 - In a world where humans and dragons coexist,
 - The theory of relativity is based on the idea that,
 - By 2050, cities will be designed with,
 - The future of artificial intelligence will lead to,
 - If cats could talk, they would probably say,

Models

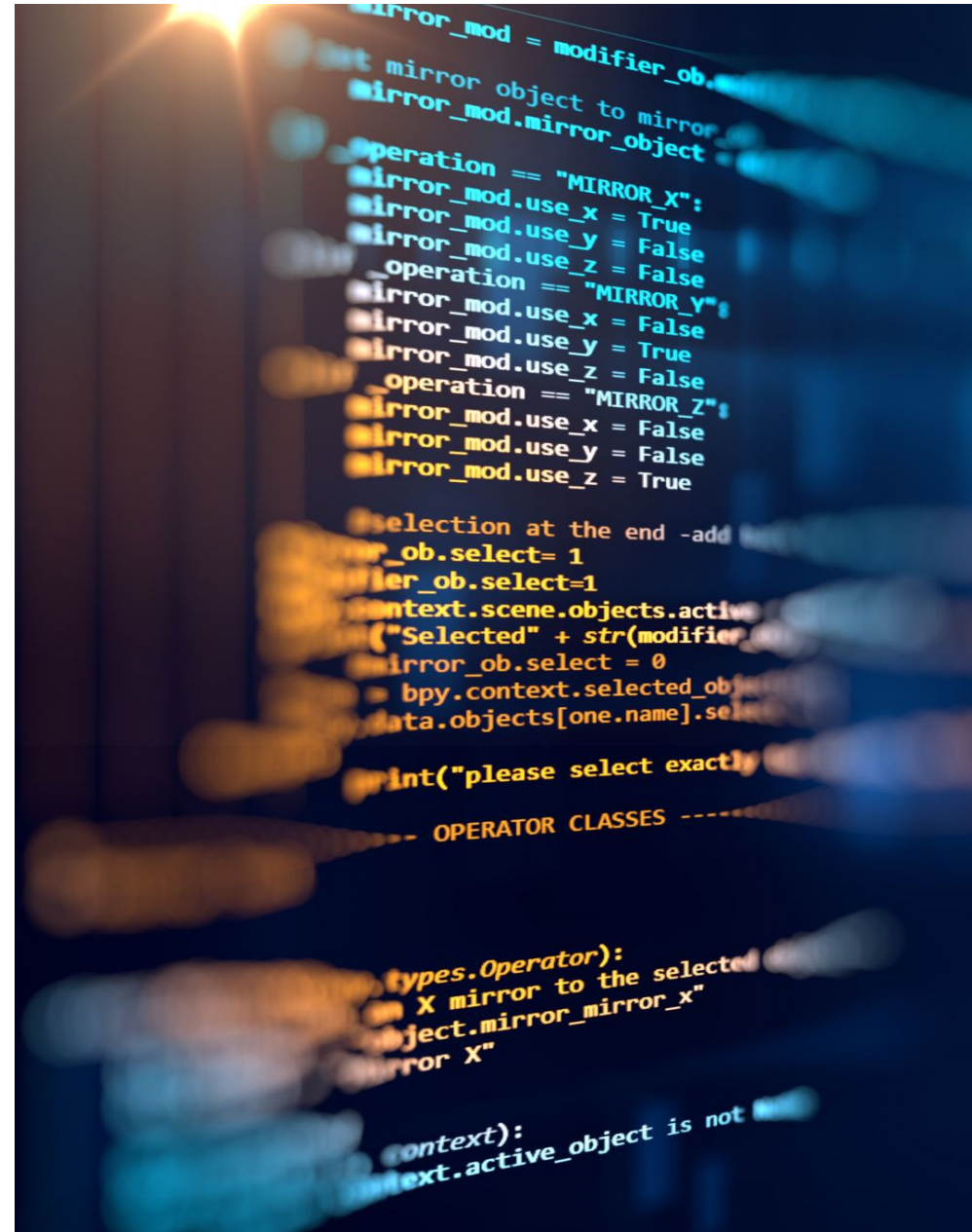
- **GPT (gpt2-médium)**
- **Bert**
- **T5 (Text-to-Text Transfer Transformer)**
- **XLNet**
- **CTRL (Conditional Transformer Language Model)**
- **RoBERTa**
- **Transformer-XL**

Hyperparameters



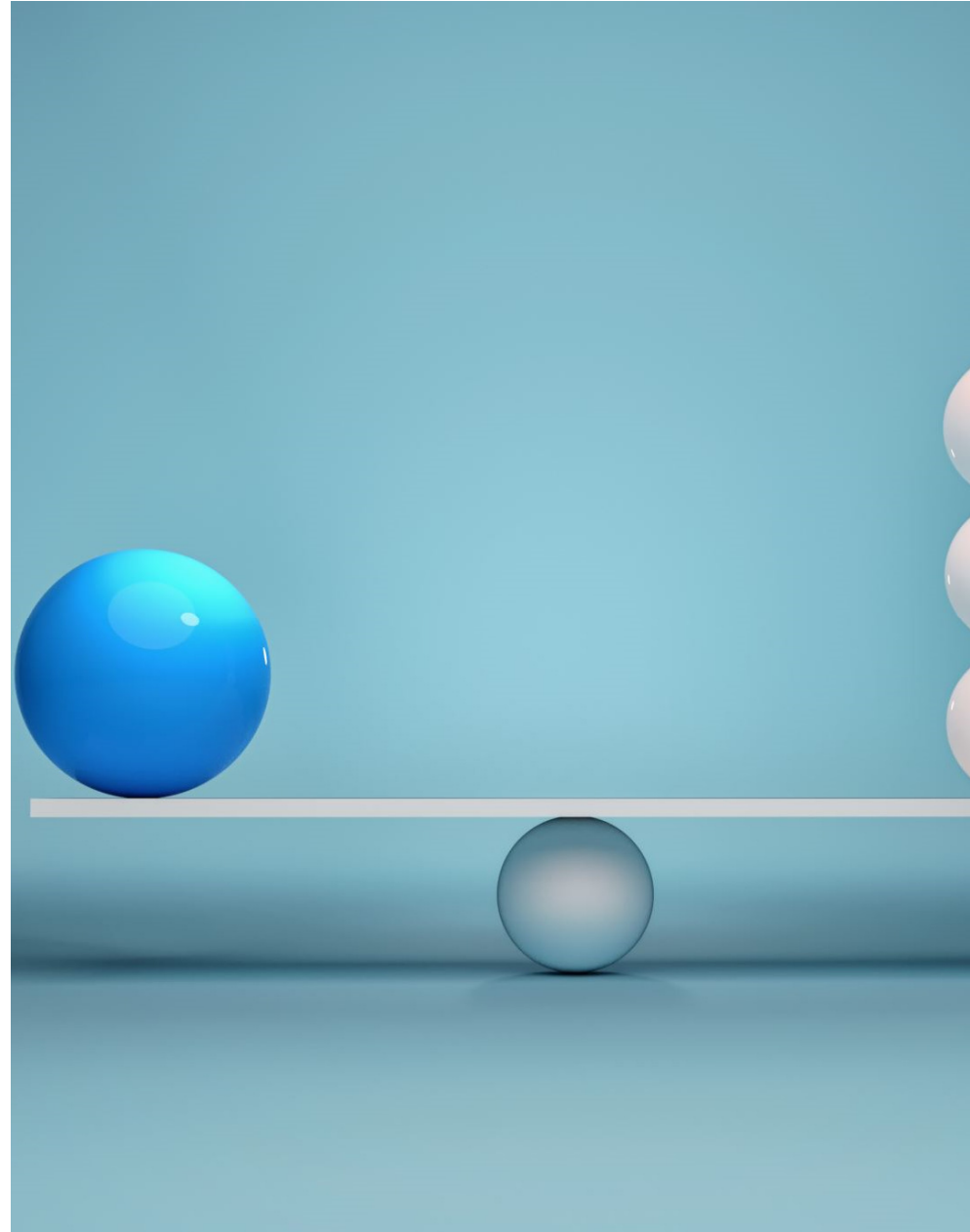
Hyper Parameters

- max_length: The maximum length of the output text will be at most.



length_penalty

- Values less than 1.0 will favor shorter lengths.
- Values greater than 1.0 will favor longer lengths.





num_return_sequences

- Number of results, or completions, to be created.
- To use a value greater than 1, do_sample must be set to True.

early_stopping

- Stop generation once the end-of-sequence token <EOS> is found.
- Prevent the model from generating text beyond a logical ending.



pad_token_id

- Token used for padding.
- Padding is needed so that sequences of text have the same length.
- Example: [PAD].

Hyperparameters Related to Variability

		More Variability	Less Variability
do_sample	How the model chooses the next word	True	False
temperature	Control the randomness of predictions	Higher than 1.0	Between 0.0 to 1.0
top_k	Considers only the top K words when deciding on the next word	Larger values	Smaller values
top_p	Samples words from a cumulative probability that exceeds threshold p	Closer to 1	Closer to 0
repetition_penalty	Discourage the model from producing repetitive output	Higher than 1.0	Between 0.0 to 1.0

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Real World Applications

- Content Creation
- Chatbots
- Education
- Programming
- Research
- Entertainment



