Tech Review: OpenAI's GPT-3

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Overview

OpenAI's Generative Pre-trained Transformer (GPT) is a powerful natural language processing model that performs many unsupervised tasks such as text completion, reading comprehension, summarization, translation, question answering, and many more. A state of the art capability introduced with GPT-2 is Zero-Shot, where the model is trained on a completely different domain of texts than it is evaluated on and achieves scores higher than other models trained and evaluated on a similar domain of texts. GPT-3 has made major improvements on GPT-2, with one being the massive increase in parameters to the language model. The number of parameters increased from 1.5 billion to 175 billion.

Industry Applications

GPT-3 is an industry standard due to its effectiveness. It is commonly used in chat logs to recommend products, give better customer service, and provide teams with more information about the overall customer experience. It is also used in award-winning video games with character narratives and dialogue lines generated by GPT-3.

Performance

GPT-3 has the same architecture as GPT-2 and made noticeable improvements. One of the improvements is recognizing patterns in the training data to further minimize loss, which also helps with zero-shot task transfer. Additionally, few-shot, one-shot and zero-shot, which are similar to zero-shot as mentioned previously, outperform state of the art language models. It is also capable of performing operations outside of the conventional NLP scope, such as word unscrambling.