OpenAI GPT-3

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November 29, 2020

Certificate

This is to certify that this is a bonafide record of the seminar *OpenAI GPT-3*, presented by **Jovial Joe Jayarson** IES17CS01, during 7th semester, August - December 2020, in partial fulfilment of the requirements of the degree of Bachelor of Technology in Computer Science and Engineering.

Place _____   _____   _____
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Date   _____   (Guide)   CSE

Acknowledgement

I gladly present this report on *OpenAI GPT-3* as a part of the final year B.Tech Computer Science and Engineering seminar. Let me take opportunity to first thank God the Almighty for providing His grace and guidance in this dispensation. I express my sincere thanks to Dr. Brilly S Sangeetha, principal for providing us with all the facilities we required to make this happen. I also acknowledge the ever encouraging presence of Dr. Kriuthiga G, head of the department. Heartfelt gratitude to my guide Mr. Ebin P M, Assistant professor for his undivided attention, support and coaching. Last but not the least I convey my regards to all the well wishers, family and friends who have helped me during the needed times.

May God bless us all.

Abstract

Generative Pre-trained Transformer 3 (GPT-3) is an autoregressive language model that uses deep learning to produce human-like text. It is the third-generation language prediction model in the GPT-n series created by OpenAI[1]. A May 28, 2020 arXiv preprint by a group of 31 engineers and researchers at OpenAI, described the development of GPT-3, a third-generation "state-of-the-art language model". In his July 29, 2020 review in The New York Times, Farhad Manjoo said that GPT-3 - which can generate computer code and poetry, as well as prose - is not just 'amazing', 'spooky', and 'humbling', but also 'more than a little terrifying'[2]. GPT-3's full version has a capacity of 175 billion machine learning parameters. GPT-3, which was introduced in May 2020, and is in beta testing as of July 2020[3]. One architecture used in natural language processing (NLP) is a neural network based on a deep learning model that was first introduced in 2017 - the Transformer[4]. GPT-3's higher number of parameters grants it a paramount level of accuracy relative to previous versions with smaller capacity. GPT-3's capacity is ten times larger than that of Microsoft's Turing NLG. On June 11, 2020, OpenAI announced that users could request access to its user-friendly GPT-3 API - a "machine learning toolset" - to help OpenAI 'explore the strengths and limits' of this new technology. The invitation described how this API had a general-purpose 'text in, text out' interface that can complete almost any English language task, instead of the usual single use-case. GPT-3's mind-boggling performance has convinced many that super-intelligence is closer than we think - or at least, that AI-generated code is closer than we think. It generates creative, insightful, deep, and even breathtakingly beautiful content[3].

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