Prompt Engineering: How to Talk to the Als

with Xavier Amatriain



Links and Resources

Here are some AI, GPT, and prompt engineering resources you may want to check out. Many of them have been referenced throughout the course.

Videos

- CMU Advanced NLP 2022: Prompting
- Prompt Engineering 101: Autocomplete, Zero-Shot, One-Shot, and Few-Shot
 Prompting (2022)

Blog Posts

- The Biggest Bottleneck for Large Language Model Startups Is UX
 - Post about the broader UX implications of LLMs, with a section on prompting
- Prompt Injection Attacks against GPT-3
 - Post about prompt injection attacks, where the goal is to craft malicious inputs so that GPT-3 ignores previous directions
- Prompt Engineering
 - Lil'Log post by Lilian Weng about in-context prompting (a.k.a. prompt engineering) for autoregressive language models

Papers

- Pre-train, Prompt, and Predict: A Systematic Survey of Prompting Methods in Natural Language Processing (2019)
 - A bit dated (three years old) survey of prompting. It includes a fairly reasonable taxonomy of prompting methods, but some of them are not very practical.
- Chain of Thought Prompting Elicits Reasoning in Large Language Models (2022)
 - Forcing the LLM to reason step-by-step by giving the right prompt improves results.
- Language Models Are Zero-Shot Reasoners (2022)
 - Fascinating paper that, as continuation of the previous, shows how LLMs reason better if you simply tell them to reason step-by-step.
- Teaching Algorithmic Reasoning via In-context Learning (2022)
 - This paper covers more advanced prompting. In this case, the authors show how
 you can prompt standard LLMs to do complex algorithmic computations given the
 right prompt. They also show how skills can not only be taught but also
 composed in the prompt.

- Ask Me Anything: A Simple Strategy for Prompting Language Models
 - This is an interesting approach to prompting in which the authors propose multiple imperfect input prompts and output aggregation through weak supervision

Tools

- Microsoft Prompt Engine
 - NPM utility library for creating and maintaining prompts for large language models
- Interactive Composition Explorer (ICE)
 - A Python library for compositional language model programs

Other Resources

- DAIR Prompt Engineering Guide
- Al Notes
 - Prompt engineering resources
- Advance Prompt Engineering Workshop