Presenting. . .
Prompt Engineering in Emacs

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Following along

Repositories for following along

github1s.com/mullikine/presentation-prompt-engineering-in-emacs
github1s.com/semiosis/examplary
github1s.com/semiosis/pen.el
github1s.com/semiosis/prompts
github1s.com/semiosis/prompt-engineering-patterns
github1s.com/minimaxir/gpt-3-client

Demo

```
1  ssh -oBatchMode=no shane@124.197.60.232 -p 9922
```

Text Generator

Background knowledge

- `GPT-3` is a `seq2seq` model (a text generator)
  - It's stochastic but can be configured to be deterministic.

Key concepts

- prompt,
- completion, and
- tokens

Limitations

Combined, the text prompt and generated completion must be below 2048 tokens (roughly ~1500 words).

context-stuffing With only 2048 tokens, you need to make use of your real estate by providing instructions and making implicit information explicit.

Prompt Engineering

Characteristics

- declarative, like `html`
- stochastic, like `problog`
- Unlocks new types of applications
- Speeds up development

Prompts as functions

Prompt YAML format Part 1

meeting-bullets-to-summary.prompt

```
1  title: "meeting bullet points to summary"
2  prompt: |+
3      Convert my short hand into a first-hand account of t
4
5      <1>
6
7      Summary:
8  engine: "davinci-instruct-beta"
9  temperature: 0.7
10 max-tokens: 60
```

Prompt YAML format Part 2

meeting-bullets-to-summary.prompt

```
 1  top-p: 1
 2  frequency-penalty: 0.0
 3  presence-penalty: 0.0
 4  best-of: 1
 5  stop-sequences:
 6  - "\n\n"
 7  conversation-mode: no
 8  # Keep stitching together until reaching this limit
 9  # This allows a full response for answers which may nee
10  stitch-max: 0
```

Prompt YAML format: Part 3

meeting-bullets-to-summary.prompt

```
vars:
- "notes"
examples:
- |+
    Tom: Profits up 50%
    Jane: New servers are online
    Kjel: Need more time to fix software
    Jane: Happy to help
    Parkman: Beta testing almost done
```

Some prompts I've made

generate-vim-command.prompt

```
 1  Vim
 2
 3  Insert "Q: " at the start of the line
 4  :%s/^/Q: /g.
 5  ###
 6  Remove whitespace from the start of each line
 7  :%s/^\s*/\1/g
 8  ###
 9  Join each line with the next line
10  :1,$j
11  ###
12  Make all occurrences of Steve lowercase
13  :%s/Steve/steve/g
14  ###
15  <1>
```

Create a prompt

Ask the audience

- What type of text to generate
  - Could be code, prose, etc.

Tutorials

Ruby

https://www.twilio.com/blog/generating-cooking-recipes-openai-gpt3-ruby