

1 Rationale ontology prompting population

1.1 Prompting techniques

- **Zero-shot prompting:** this technique allows large language models to handle new tasks using only natural language instructions, without requiring examples or any effort by the user.
- **Few-shot prompting:** this technique enables language models to learn new tasks with few examples, reducing the need for extensive task-specific datasets.
- **Role prompting:** this technique improves large language models performance on solving tasks by simulating specific roles.
- **Emotion prompting:** This technique enhances large language models by integrating emotions into prompts, improving response generation and performance on tasks.
- **Analogical prompting:** this technique is able to generate automatically task-specific exemplars, reducing manual annotation needs, and improving performance on problem-solving tasks.

1.2 Solved tasks

- **Emotion classification:** classification of the emotion in a given text.
- **Mathematical understanding:** solving a given mathematical problem of medium difficulty.
- **Text generation:** generation of text given a prompt.
- **Text explanation:** explanation of the content of a given text.

1.3 Large language models used

- GPT-4
- Mistral-7B
- Gemini Flash