

Lesson Overview: Generative AI and Large Language Models

1. Introduction to Generative AI:

- Generative AI tools mimic or approximate human ability to create content.
- These tools are a subset of traditional machine learning, learning from massive datasets of human-generated content.
- Large language models (LLMs) are key players in generative AI, trained on massive datasets with billions of parameters.

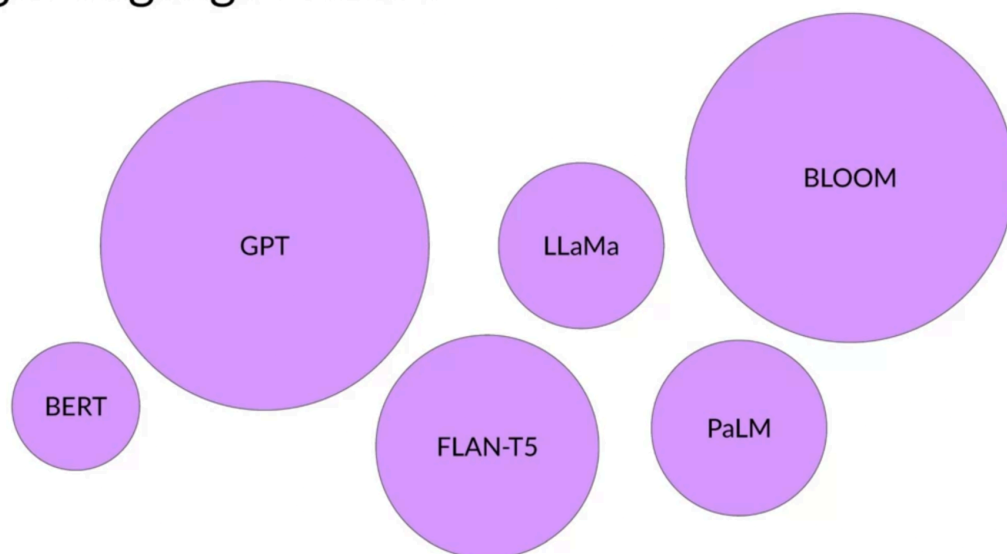
2. Foundation Models and Parameters:

- Foundation models, also known as base models, serve as the backbone of generative AI.
- Parameters represent the model's memory, with more parameters allowing for more sophisticated tasks.
- Various foundation models exist, differing in size, with trillions of words trained over weeks or months.

3. Representation and Usage of LLMs:

- Large language models (LLMs) represented as purple circles are pivotal in natural language generation.
- LLMs can be used as is or fine-tuned for specific use cases without retraining from scratch.

Large Language Models



4. Focus on Language Models:

- While generative AI spans multiple modalities, this course primarily focuses on large language models and their natural language generation capabilities.

5. Interacting with Language Models:

- Interactions with LLMs differ from traditional machine learning and programming paradigms.
- Natural language or human-written instructions are used as prompts for LLMs.
- The context window, accommodating a few thousand words, varies among models.
- The model generates completions based on the prompt, with the process termed as inference.

6. Prompt and Completion Examples:

- Prompt: The input text provided to the LLM.
- Completion: The output generated by the LLM, consisting of the original prompt followed by generated text.
- Examples showcase LLMs' ability to understand and respond appropriately to prompts.