

```
# NLP – Natural Language Processing
```

```
# LLM – Large Language Model
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```
# GPT-4
```

```
# GPT-3.5-turbo
```

```
# BERT
```

```
# T5
```

```
# Steps to LLM Pipeline
```

```
# 1. Architecture
```

```
#     - Transformer
```

```
#     - Tokenization is breaking down sentences into word
```

```
#     - Embedding is converting words into numbers
```

```
# 2. Method
```

```
#     - Next word prediction
```

```
#     - The students were excited to open their _____ for their teacher: Book
```

```
#     - SEP
```

```
# 3. Training
```

```
#     - RLHF – re-enforcement learning by human feedback
```

```
#     - Training and fine-tuning
```

```
# 4. Inference
```

```
#     - Prompt Engineering
```

```
# !pip install openai
```

```
from openai import OpenAI
```

```
client = OpenAI(api_key="sk-proj-E7HaFUn1dt2nw376tc38T3BlbkFJexAhA8oHSoPrEF85m7YM")
```

```
response = client.chat.completions.create(
```

```
    model="gpt-4o",
```

```
    messages=[
```

```
        {
```

```
            "role": "system",
```

```
            "content": "You are a helpful assistant."
```

```
        },
```

```
        {
```

```
            "role": "user",
```

```
            "content": "In less than 256 token, explain solidity"
```

```
        }
    ],
```

```
    temperature=1,
```

```
    max_tokens=256,
```

```
    top_p=1,
```

```
    frequency_penalty=0,
```

```
    presence_penalty=0
```

```
)
```

```
print(response)
```

```
➡ ChatCompletion(id='chatcmpl-9fQEx3Hxr8EzM9w0I3RqRNMwNXkb0', choices=[Choice(finish_reason='s
```

```
message = response.choices[0].message.content  
print(message)
```

⇒ Solidity is a high-level, statically-typed programming language specifically designed for de

Key features include:

1. **Contract Orientation**: Everything in Solidity revolves around contracts, akin to class
2. **Data Types**: Supports multiple data types including integers, booleans, strings, and c
3. **Functions and Modifiers**: Functions can be declared with visibility specifiers (public
4. **Events and Logging**: Events are used to log data on the blockchain, which external app
5. **Truffle and Remix**: Common development environments that simplify coding, testing, and

Solidity is integral to the development of decentralized applications, offering robust tools

Start coding or [generate](#) with AI.