l-speech-recognition-model-for-rag

June 22, 2024

Installing Dependency

```
[]: %pip install llama-index-llms-anthropic
     %pip install llama-index-llms-openai
     !pip install llama-index
     !pip install llama-index-llms-ollama
     !pip install llama-index-embeddings-huggingface
     !pip install llama_index.llms.huggingface
     !pip install llama_index.llms.huggingface_api
     !pip install git+https://github.com/huggingface/accelerate
     !pip install datasets
     !pip install chromadb
     !pip install llama_index.vector_stores.chroma
    Collecting llama-index-llms-anthropic
      Downloading llama_index_llms_anthropic-0.1.14-py3-none-any.whl (6.1 kB)
    Collecting anthropic<0.29.0,>=0.26.2 (from llama-index-llms-anthropic)
      Downloading anthropic-0.28.1-py3-none-any.whl (862 kB)
                                862.7/862.7
    kB 13.0 MB/s eta 0:00:00
    Collecting llama-index-core<0.11.0,>=0.10.1 (from llama-index-llms-
    anthropic)
      Downloading llama_index_core-0.10.48-py3-none-any.whl (15.4 MB)
                               15.4/15.4 MB
    72.8 MB/s eta 0:00:00
    Requirement already satisfied: anyio<5,>=3.5.0 in
    /usr/local/lib/python3.10/dist-packages (from anthropic<0.29.0,>=0.26.2->llama-
    index-llms-anthropic) (3.7.1)
    Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
    packages (from anthropic<0.29.0,>=0.26.2->llama-index-llms-anthropic) (1.7.0)
    Collecting httpx<1,>=0.23.0 (from anthropic<0.29.0,>=0.26.2->llama-index-llms-
    anthropic)
      Downloading httpx-0.27.0-py3-none-any.whl (75 kB)
                               75.6/75.6 kB
    14.0 MB/s eta 0:00:00
    Collecting jiter<1,>=0.4.0 (from anthropic<0.29.0,>=0.26.2->llama-index-
    llms-anthropic)
      Downloading
```

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327.6/327.6
kB 29.8 MB/s eta 0:00:00
Requirement already satisfied: pydantic<3,>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from anthropic<0.29.0,>=0.26.2->llama-
index-llms-anthropic) (2.7.4)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from anthropic<0.29.0,>=0.26.2->llama-index-llms-anthropic) (1.3.1)
Requirement already satisfied: tokenizers>=0.13.0 in
/usr/local/lib/python3.10/dist-packages (from anthropic<0.29.0,>=0.26.2->llama-
index-llms-anthropic) (0.19.1)
Requirement already satisfied: typing-extensions<5,>=4.7 in
/usr/local/lib/python3.10/dist-packages (from anthropic<0.29.0,>=0.26.2->llama-
index-llms-anthropic) (4.12.2)
Requirement already satisfied: PyYAML>=6.0.1 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
(6.0.1)
Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (2.0.30)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (3.9.5)
Collecting dataclasses-json (from llama-index-core<0.11.0,>=0.10.1->llama-index-
llms-anthropic)
  Downloading dataclasses_json-0.6.7-py3-none-any.whl (28 kB)
Collecting deprecated>=1.2.9.3 (from llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-anthropic)
  Downloading Deprecated-1.2.14-py2.py3-none-any.whl (9.6 kB)
Collecting dirtyjson<2.0.0,>=1.0.8 (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
 Downloading dirtyjson-1.0.8-py3-none-any.whl (25 kB)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (2023.6.0)
Collecting llamaindex-py-client<0.2.0,>=0.1.18 (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
  Downloading llamaindex_py_client-0.1.19-py3-none-any.whl (141 kB)
                           141.9/141.9
kB 22.6 MB/s eta 0:00:00
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
(3.3)
```

jiter-0.4.2-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (327 kB)

```
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (3.8.1)
Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
(1.25.2)
Collecting openai>=1.1.0 (from llama-index-core<0.11.0,>=0.10.1->llama-index-
llms-anthropic)
 Downloading openai-1.35.3-py3-none-any.whl (327 kB)
                           327.4/327.4
kB 28.4 MB/s eta 0:00:00
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
(2.0.3)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
(9.4.0)
Requirement already satisfied: requests>=2.31.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (2.31.0)
Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (8.4.1)
Collecting tiktoken>=0.3.3 (from llama-index-core<0.11.0,>=0.10.1->llama-index-
llms-anthropic)
 Downloading
tiktoken-0.7.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.1
                           1.1/1.1 MB
64.0 MB/s eta 0:00:00
Requirement already satisfied: tqdm<5.0.0,>=4.66.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (4.66.4)
Collecting typing-inspect>=0.8.0 (from llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-anthropic)
  Downloading typing_inspect-0.9.0-py3-none-any.whl (8.8 kB)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (1.14.1)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-anthropic) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (1.4.1)
```

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Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-anthropic) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (4.0.3)
Requirement already satisfied: idna>=2.8 in /usr/local/lib/python3.10/dist-
packages (from anyio<5,>=3.5.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-
anthropic) (3.7)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio<5,>=3.5.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-
anthropic) (1.2.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx<1,>=0.23.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-
anthropic) (2024.6.2)
Collecting httpcore==1.* (from
httpx<1,>=0.23.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-anthropic)
 Downloading httpcore-1.0.5-py3-none-any.whl (77 kB)
                           77.9/77.9 kB
12.7 MB/s eta 0:00:00
Collecting h11<0.15,>=0.13 (from
httpcore==1.*->httpx<1,>=0.23.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-
anthropic)
 Downloading h11-0.14.0-py3-none-any.whl (58 kB)
                           58.3/58.3 kB
7.5 MB/s eta 0:00:00
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-
packages (from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-anthropic) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
anthropic) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (2024.5.15)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from
pydantic<3,>=1.9.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-anthropic)
(0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from
pydantic<3,>=1.9.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-anthropic)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->1lama-index-
```

```
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
anthropic) (3.0.3)
Requirement already satisfied: huggingface-hub<1.0,>=0.16.4 in
/usr/local/lib/python3.10/dist-packages (from
tokenizers>=0.13.0->anthropic<0.29.0,>=0.26.2->llama-index-llms-anthropic)
(0.23.4)
Collecting mypy-extensions>=0.3.0 (from typing-inspect>=0.8.0->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
  Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting marshmallow<4.0.0,>=3.18.0 (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic)
  Downloading marshmallow-3.21.3-py3-none-any.whl (49 kB)
                           49.2/49.2 kB
7.9 MB/s eta 0:00:00
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
anthropic) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
anthropic) (2024.1)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from huggingface-
hub<1.0,>=0.16.4->tokenizers>=0.13.0->anthropic<0.29.0,>=0.26.2->llama-index-
llms-anthropic) (3.15.1)
Requirement already satisfied: packaging>=20.9 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<1.0,>=0.16.4->tokenizers>=0.13.0->anthropic<0.29.0,>=0.26.2->llama-index-
llms-anthropic) (24.1)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-anthropic) (1.16.0)
Installing collected packages: dirtyjson, mypy-extensions, marshmallow, jiter,
h11, deprecated, typing-inspect, tiktoken, httpcore, httpx, dataclasses-json,
openai, llamaindex-py-client, anthropic, llama-index-core, llama-index-llms-
anthropic
Successfully installed anthropic-0.28.1 dataclasses-json-0.6.7 deprecated-1.2.14
dirtyjson-1.0.8 h11-0.14.0 httpcore-1.0.5 httpx-0.27.0 jiter-0.4.2 llama-index-
core-0.10.48 llama-index-llms-anthropic-0.1.14 llamaindex-py-client-0.1.19
marshmallow-3.21.3 mypy-extensions-1.0.0 openai-1.35.3 tiktoken-0.7.0 typing-
```

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inspect-0.9.0
Collecting llama-index-llms-openai
  Downloading llama_index_llms_openai-0.1.22-py3-none-any.whl (11 kB)
Requirement already satisfied: llama-index-core<0.11.0,>=0.10.24 in
/usr/local/lib/python3.10/dist-packages (from llama-index-llms-openai) (0.10.48)
Requirement already satisfied: PyYAML>=6.0.1 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai)
(6.0.1)
Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2.0.30)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.9.5)
Requirement already satisfied: dataclasses-json in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (0.6.7)
Requirement already satisfied: deprecated>=1.2.9.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.2.14)
Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.0.8)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2023.6.0)
Requirement already satisfied: httpx in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (0.27.0)
Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (0.1.19)
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.3)
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.8.1)
Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai)
(1.25.2)
Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai)
(1.35.3)
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (2.0.3)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
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packages (from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai)
(9.4.0)
Requirement already satisfied: requests>=2.31.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2.31.0)
Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (8.4.1)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (0.7.0)
Requirement already satisfied: tqdm<5.0.0,>=4.66.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (4.66.4)
Requirement already satisfied: typing-extensions>=4.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (4.12.2)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (0.9.0)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.14.1)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core<0.11.0,>=0.10.24->llama-
index-llms-openai) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core<0.11.0,>=0.10.24->llama-
index-llms-openai) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (4.0.3)
Requirement already satisfied: pydantic>=1.10 in /usr/local/lib/python3.10/dist-
packages (from llamaindex-py-client<0.2.0,>=0.1.18->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2.7.4)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (2024.6.2)
```

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Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (0.14.0)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2024.5.15)
Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-core<0.11.0,>=0.10.24->llama-index-
llms-openai) (1.7.0)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->1lama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-core<0.11.0,>=0.10.24->llama-index-
llms-openai) (3.0.3)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.0.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (3.21.3)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
```

openai) (2024.1)

```
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx->llama-index-core<0.11.0,>=0.10.24->llama-index-
llms-openai) (1.2.1)
Requirement already satisfied: packaging>=17.0 in
/usr/local/lib/python3.10/dist-packages (from
marshmallow<4.0.0,>=3.18.0->dataclasses-json->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (24.1)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core<0.11.0,>=0.10.24->llama-index-llms-
openai) (2.18.4)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-
core<0.11.0,>=0.10.24->llama-index-llms-openai) (1.16.0)
Installing collected packages: llama-index-llms-openai
Successfully installed llama-index-llms-openai-0.1.22
Collecting llama-index
  Downloading llama index-0.10.48.post1-py3-none-any.whl (6.9 kB)
Collecting llama-index-agent-openai<0.3.0,>=0.1.4 (from llama-index)
  Downloading llama_index_agent_openai-0.2.7-py3-none-any.whl (12 kB)
Collecting llama-index-cli<0.2.0,>=0.1.2 (from llama-index)
  Downloading llama_index_cli-0.1.12-py3-none-any.whl (26 kB)
Requirement already satisfied: llama-index-core==0.10.48 in
/usr/local/lib/python3.10/dist-packages (from llama-index) (0.10.48)
Collecting llama-index-embeddings-openai<0.2.0,>=0.1.5 (from llama-index)
  Downloading llama_index_embeddings_openai-0.1.10-py3-none-any.whl (6.2 kB)
Collecting llama-index-indices-managed-llama-cloud<0.2.0,>=0.1.2 (from llama-
index)
  Downloading llama_index_indices_managed_llama_cloud-0.1.6-py3-none-any.whl
(6.7 \text{ kB})
Collecting llama-index-legacy<0.10.0,>=0.9.48 (from llama-index)
 Downloading llama_index_legacy-0.9.48-py3-none-any.whl (2.0 MB)
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Requirement already satisfied: llama-index-llms-openai<0.2.0,>=0.1.13 in
/usr/local/lib/python3.10/dist-packages (from llama-index) (0.1.22)
Collecting llama-index-multi-modal-llms-openai<0.2.0,>=0.1.3 (from llama-index)
 Downloading llama index multi modal llms_openai-0.1.6-py3-none-any.whl (5.8
Collecting llama-index-program-openai<0.2.0,>=0.1.3 (from llama-index)
  Downloading llama_index_program_openai-0.1.6-py3-none-any.whl (5.2 kB)
Collecting llama-index-question-gen-openai<0.2.0,>=0.1.2 (from llama-index)
  Downloading llama_index_question_gen_openai-0.1.3-py3-none-any.whl (2.9 kB)
Collecting llama-index-readers-file<0.2.0,>=0.1.4 (from llama-index)
```

Downloading llama_index_readers_file-0.1.25-py3-none-any.whl (37 kB) Collecting llama-index-readers-llama-parse<0.2.0,>=0.1.2 (from llama-index) Downloading llama_index_readers_llama_parse-0.1.4-py3-none-any.whl (2.5 kB) Requirement already satisfied: PyYAML>=6.0.1 in /usr/local/lib/python3.10/distpackages (from llama-index-core==0.10.48->llama-index) (6.0.1) Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (2.0.30)Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (3.9.5)Requirement already satisfied: dataclasses-json in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (0.6.7)Requirement already satisfied: deprecated>=1.2.9.3 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (1.2.14) Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (1.0.8)Requirement already satisfied: fsspec>=2023.5.0 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (2023.6.0) Requirement already satisfied: httpx in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-index) (0.27.0) Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (0.1.19)Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (1.6.0) Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/distpackages (from llama-index-core==0.10.48->llama-index) (3.3) Requirement already satisfied: nltk<4.0.0,>=3.8.1 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (3.8.1)Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/distpackages (from llama-index-core==0.10.48->llama-index) (1.25.2) Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/distpackages (from llama-index-core==0.10.48->llama-index) (1.35.3) Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-index) (2.0.3) Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/distpackages (from llama-index-core==0.10.48->llama-index) (9.4.0) Requirement already satisfied: requests>=2.31.0 in /usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llamaindex) (2.31.0)

Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in

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/usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-
index) (8.4.1)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-
index) (0.7.0)
Requirement already satisfied: tqdm<5.0.0,>=4.66.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-
index) (4.66.4)
Requirement already satisfied: typing-extensions>=4.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-
index) (4.12.2)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-core==0.10.48->llama-
index) (0.9.0)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core==0.10.48->llama-index) (1.14.1)
Requirement already satisfied: beautifulsoup4<5.0.0,>=4.12.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-readers-
file<0.2.0,>=0.1.4->llama-index) (4.12.3)
Collecting pypdf<5.0.0,>=4.0.1 (from llama-index-readers-
file<0.2.0,>=0.1.4->llama-index)
 Downloading pypdf-4.2.0-py3-none-any.whl (290 kB)
                           290.4/290.4
kB 40.0 MB/s eta 0:00:00
Collecting striprtf<0.0.27,>=0.0.26 (from llama-index-readers-
file<0.2.0,>=0.1.4->llama-index)
  Downloading striprtf-0.0.26-py3-none-any.whl (6.9 kB)
Collecting llama-parse<0.5.0,>=0.4.0 (from llama-index-readers-llama-
parse<0.2.0,>=0.1.2->llama-index)
 Downloading llama parse-0.4.4-py3-none-any.whl (8.0 kB)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core==0.10.48->llama-index) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core==0.10.48->llama-index)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core==0.10.48->llama-index) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core==0.10.48->llama-index) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core==0.10.48->llama-index)
(1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
```

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index-core==0.10.48->llama-index) (4.0.3)
Requirement already satisfied: soupsieve>1.2 in /usr/local/lib/python3.10/dist-
packages (from beautifulsoup4<5.0.0,>=4.12.3->llama-index-readers-
file<0.2.0,>=0.1.4->llama-index) (2.5)
Requirement already satisfied: pydantic>=1.10 in /usr/local/lib/python3.10/dist-
packages (from llamaindex-py-client<0.2.0,>=0.1.18->llama-index-
core==0.10.48->llama-index) (2.7.4)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core==0.10.48->llama-index) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core==0.10.48->llama-index) (2024.6.2)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core==0.10.48->llama-index) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core==0.10.48->llama-index) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core==0.10.48->llama-index) (1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx->llama-index-
core==0.10.48->llama-index) (0.14.0)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core==0.10.48->llama-index) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core==0.10.48->llama-index) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core==0.10.48->llama-index) (2024.5.15)
Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-core==0.10.48->llama-index) (1.7.0)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->llama-index-
core==0.10.48->llama-index) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->llama-index-
core==0.10.48->llama-index) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-core==0.10.48->llama-index) (3.0.3)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core==0.10.48->llama-index) (1.0.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core==0.10.48->llama-index) (3.21.3)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core==0.10.48->llama-index) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
```

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packages (from pandas->llama-index-core==0.10.48->llama-index) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core==0.10.48->llama-index) (2024.1)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx->llama-index-core==0.10.48->llama-index) (1.2.1)
Requirement already satisfied: packaging>=17.0 in
/usr/local/lib/python3.10/dist-packages (from
marshmallow<4.0.0,>=3.18.0->dataclasses-json->llama-index-core==0.10.48->llama-
index) (24.1)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core==0.10.48->llama-index) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core==0.10.48->llama-index) (2.18.4)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-core==0.10.48->llama-
index) (1.16.0)
Installing collected packages: striprtf, pypdf, llama-index-legacy, llama-parse,
llama-index-readers-file, llama-index-indices-managed-llama-cloud, llama-index-
embeddings-openai, llama-index-readers-llama-parse, llama-index-multi-modal-
llms-openai, llama-index-cli, llama-index-agent-openai, llama-index-program-
openai, llama-index-question-gen-openai, llama-index
Successfully installed llama-index-0.10.48.post1 llama-index-agent-openai-0.2.7
llama-index-cli-0.1.12 llama-index-embeddings-openai-0.1.10 llama-index-indices-
managed-llama-cloud-0.1.6 llama-index-legacy-0.9.48 llama-index-multi-modal-
llms-openai-0.1.6 llama-index-program-openai-0.1.6 llama-index-question-gen-
openai-0.1.3 llama-index-readers-file-0.1.25 llama-index-readers-llama-
parse-0.1.4 llama-parse-0.4.4 pypdf-4.2.0 striprtf-0.0.26
Collecting llama-index-llms-ollama
  Downloading llama_index_llms_ollama-0.1.5-py3-none-any.whl (3.6 kB)
Requirement already satisfied: llama-index-core<0.11.0,>=0.10.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-llms-ollama) (0.10.48)
Requirement already satisfied: PyYAML>=6.0.1 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(6.0.1)
Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2.0.30)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.9.5)
Requirement already satisfied: dataclasses-json in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (0.6.7)
Requirement already satisfied: deprecated>=1.2.9.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.2.14)
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Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.0.8)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2023.6.0)
Requirement already satisfied: httpx in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (0.27.0)
Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (0.1.19)
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.3)
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.8.1)
Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(1.25.2)
Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(1.35.3)
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2.0.3)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(9.4.0)
Requirement already satisfied: requests>=2.31.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2.31.0)
Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (8.4.1)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (0.7.0)
Requirement already satisfied: tqdm<5.0.0,>=4.66.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (4.66.4)
Requirement already satisfied: typing-extensions>=4.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (4.12.2)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (0.9.0)
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Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.14.1)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-ollama) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-core<0.11.0,>=0.10.1->llama-
index-llms-ollama) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (4.0.3)
Requirement already satisfied: pydantic>=1.10 in /usr/local/lib/python3.10/dist-
packages (from llamaindex-py-client<0.2.0,>=0.1.18->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2.7.4)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(2024.6.2)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-ollama)
(1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (0.14.0)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2024.5.15)
```

```
Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-core<0.11.0,>=0.10.1->llama-index-
llms-ollama) (1.7.0)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->1lama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.31.0->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (3.0.3)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.0.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (3.21.3)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (2024.1)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (1.2.1)
Requirement already satisfied: packaging>=17.0 in
/usr/local/lib/python3.10/dist-packages (from
marshmallow<4.0.0,>=3.18.0->dataclasses-json->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (24.1)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core<0.11.0,>=0.10.1->llama-index-llms-
ollama) (2.18.4)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-
core<0.11.0,>=0.10.1->llama-index-llms-ollama) (1.16.0)
Installing collected packages: llama-index-llms-ollama
Successfully installed llama-index-llms-ollama-0.1.5
```

```
Collecting llama-index-embeddings-huggingface
  Downloading llama_index_embeddings_huggingface-0.2.2-py3-none-any.whl (7.2 kB)
Requirement already satisfied: huggingface-hub[inference]>=0.19.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-embeddings-
huggingface) (0.23.4)
Requirement already satisfied: llama-index-core<0.11.0,>=0.10.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-embeddings-
huggingface) (0.10.48)
Collecting sentence-transformers>=2.6.1 (from llama-index-embeddings-
huggingface)
  Downloading sentence_transformers-3.0.1-py3-none-any.whl (227 kB)
                           227.1/227.1
kB 8.2 MB/s eta 0:00:00
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub[inference]>=0.19.0->llama-index-embeddings-
huggingface) (3.15.1)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub[inference] >= 0.19.0 -> 11 ama - index - embeddings - hugging face) (2023.6.0)
Requirement already satisfied: packaging>=20.9 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub[inference]>=0.19.0->llama-index-embeddings-huggingface) (24.1)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub[inference]>=0.19.0->llama-index-embeddings-
huggingface) (6.0.1)
Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub[inference]>=0.19.0->llama-index-embeddings-
huggingface) (2.31.0)
Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub[inference]>=0.19.0->llama-index-embeddings-
huggingface) (4.66.4)
Requirement already satisfied: typing-extensions>=3.7.4.3 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub[inference] >= 0.19.0 -> 11ama - index - embeddings - huggingface) (4.12.2)
Requirement already satisfied: aiohttp in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub[inference]>=0.19.0->llama-index-embeddings-
huggingface) (3.9.5)
Collecting minijinja>=1.0 (from huggingface-hub[inference]>=0.19.0->1lama-index-
embeddings-huggingface)
  Downloading
minijinja-2.0.1-cp38-abi3-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (853
kB)
                           853.2/853.2
```

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Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in /usr/local/lib/python3.10/dist-packages (from llama-index-

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core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (2.0.30)
Requirement already satisfied: dataclasses-json in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (0.6.7)
Requirement already satisfied: deprecated>=1.2.9.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (1.2.14)
Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (1.0.8)
Requirement already satisfied: httpx in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface)
(0.27.0)
Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (0.1.19)
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (3.3)
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (3.8.1)
Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (1.25.2)
Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (1.35.3)
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface)
(2.0.3)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (9.4.0)
Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (8.4.1)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (0.7.0)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (0.9.0)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface)
```

```
(1.14.1)
Requirement already satisfied: transformers<5.0.0,>=4.34.0 in
/usr/local/lib/python3.10/dist-packages (from sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface) (4.41.2)
Requirement already satisfied: torch>=1.11.0 in /usr/local/lib/python3.10/dist-
packages (from sentence-transformers>=2.6.1->llama-index-embeddings-huggingface)
(2.3.0+cu121)
Requirement already satisfied: scikit-learn in /usr/local/lib/python3.10/dist-
packages (from sentence-transformers>=2.6.1->llama-index-embeddings-huggingface)
(1.2.2)
Requirement already satisfied: scipy in /usr/local/lib/python3.10/dist-packages
(from sentence-transformers>=2.6.1->llama-index-embeddings-huggingface) (1.11.4)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->huggingface-
hub[inference] >= 0.19.0 -> llama - index - embeddings - huggingface) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp->huggingface-hub[inference]>=0.19.0->llama-index-
embeddings-huggingface) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->huggingface-
hub[inference] >= 0.19.0 -> llama - index - embeddings - huggingface) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->huggingface-
hub[inference] >= 0.19.0 -> llama - index - embeddings - huggingface) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp->huggingface-hub[inference]>=0.19.0->llama-index-
embeddings-huggingface) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->huggingface-
hub[inference]>=0.19.0->llama-index-embeddings-huggingface) (4.0.3)
Requirement already satisfied: pydantic>=1.10 in /usr/local/lib/python3.10/dist-
packages (from llamaindex-py-client<0.2.0,>=0.1.18->llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (2.7.4)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (2024.6.2)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (1.3.1)
```

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Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx->llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (0.14.0)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.1->llama-index-
embeddings-huggingface) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-core<0.11.0,>=0.10.1->llama-index-
embeddings-huggingface) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (2024.5.15)
Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-core<0.11.0,>=0.10.1->llama-index-
embeddings-huggingface) (1.7.0)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub[inference] >= 0.19.0 -> 1 lama - index - embeddings - hugging face) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub[inference] >= 0.19.0 -> 1 lama - index - embeddings - hugging face) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLA1chemy[asyncio] >= 1.4.49 -> llama-index-core<0.11.0, >= 0.10.1 -> llama-index-
embeddings-huggingface) (3.0.3)
Requirement already satisfied: sympy in /usr/local/lib/python3.10/dist-packages
(from torch>=1.11.0->sentence-transformers>=2.6.1->llama-index-embeddings-
huggingface) (1.12.1)
Requirement already satisfied: jinja2 in /usr/local/lib/python3.10/dist-packages
(from torch>=1.11.0->sentence-transformers>=2.6.1->llama-index-embeddings-
huggingface) (3.1.4)
Collecting nvidia-cuda-nvrtc-cu12==12.1.105 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia_cuda_nvrtc_cu12-12.1.105-py3-none-manylinux1_x86_64.whl
(23.7 MB)
Collecting nvidia-cuda-runtime-cu12==12.1.105 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia_cuda_runtime_cu12-12.1.105-py3-none-manylinux1_x86_64.whl
(823 kB)
Collecting nvidia-cuda-cupti-cu12==12.1.105 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia cuda_cupti_cu12-12.1.105-py3-none-manylinux1_x86_64.whl
(14.1 MB)
Collecting nvidia-cudnn-cu12==8.9.2.26 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia cudnn_cu12-8.9.2.26-py3-none-manylinux1_x86_64.whl (731.7
MB)
Collecting nvidia-cublas-cu12==12.1.3.1 (from torch>=1.11.0->sentence-
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transformers>=2.6.1->llama-index-embeddings-huggingface)
 Using cached nvidia_cublas_cu12-12.1.3.1-py3-none-manylinux1_x86_64.whl (410.6
MB)
Collecting nvidia-cufft-cu12==11.0.2.54 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
 Using cached nvidia_cufft_cu12-11.0.2.54-py3-none-manylinux1_x86_64.whl (121.6
MB)
Collecting nvidia-curand-cu12==10.3.2.106 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
 Using cached nvidia_curand_cu12-10.3.2.106-py3-none-manylinux1_x86_64.whl
(56.5 MB)
Collecting nvidia-cusolver-cu12==11.4.5.107 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia cusolver_cu12-11.4.5.107-py3-none-manylinux1 x86_64.whl
(124.2 MB)
Collecting nvidia-cusparse-cu12==12.1.0.106 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia_cusparse_cu12-12.1.0.106-py3-none-manylinux1_x86_64.whl
(196.0 MB)
Collecting nvidia-nccl-cu12==2.20.5 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
 Using cached nvidia_nccl_cu12-2.20.5-py3-none-manylinux2014_x86_64.whl (176.2
Collecting nvidia-nvtx-cu12==12.1.105 (from torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface)
  Using cached nvidia nvtx_cu12-12.1.105-py3-none-manylinux1_x86_64.whl (99 kB)
Requirement already satisfied: triton==2.3.0 in /usr/local/lib/python3.10/dist-
packages (from torch>=1.11.0->sentence-transformers>=2.6.1->llama-index-
embeddings-huggingface) (2.3.0)
Collecting nvidia-nvjitlink-cu12 (from nvidia-cusolver-
cu12==11.4.5.107->torch>=1.11.0->sentence-transformers>=2.6.1->llama-index-
embeddings-huggingface)
  Downloading nvidia_nvjitlink_cu12-12.5.40-py3-none-manylinux2014_x86_64.whl
(21.3 MB)
                           21.3/21.3 MB
44.8 MB/s eta 0:00:00
Requirement already satisfied: tokenizers<0.20,>=0.19 in
/usr/local/lib/python3.10/dist-packages (from
transformers<5.0.0,>=4.34.0->sentence-transformers>=2.6.1->llama-index-
embeddings-huggingface) (0.19.1)
Requirement already satisfied: safetensors>=0.4.1 in
/usr/local/lib/python3.10/dist-packages (from
transformers<5.0.0,>=4.34.0->sentence-transformers>=2.6.1->llama-index-
embeddings-huggingface) (0.4.3)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (1.0.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
```

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/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (3.21.3)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (2024.1)
Requirement already satisfied: threadpoolctl>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from scikit-learn->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface) (3.5.0)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx->llama-index-core<0.11.0,>=0.10.1->llama-index-
embeddings-huggingface) (1.2.1)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-core<0.11.0,>=0.10.1->llama-index-embeddings-
huggingface) (2.18.4)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-
core<0.11.0,>=0.10.1->llama-index-embeddings-huggingface) (1.16.0)
Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from jinja2->torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface) (2.1.5)
Requirement already satisfied: mpmath<1.4.0,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from sympy->torch>=1.11.0->sentence-
transformers>=2.6.1->llama-index-embeddings-huggingface) (1.3.0)
Installing collected packages: nvidia-nvtx-cu12, nvidia-nvjitlink-cu12, nvidia-
nccl-cu12, nvidia-curand-cu12, nvidia-cufft-cu12, nvidia-cuda-runtime-cu12,
nvidia-cuda-nvrtc-cu12, nvidia-cuda-cupti-cu12, nvidia-cublas-cu12, minijinja,
nvidia-cusparse-cu12, nvidia-cudnn-cu12, nvidia-cusolver-cu12, sentence-
transformers, llama-index-embeddings-huggingface
Successfully installed llama-index-embeddings-huggingface-0.2.2 minijinja-2.0.1
nvidia-cublas-cu12-12.1.3.1 nvidia-cuda-cupti-cu12-12.1.105 nvidia-cuda-nvrtc-
cu12-12.1.105 nvidia-cuda-runtime-cu12-12.1.105 nvidia-cudnn-cu12-8.9.2.26
nvidia-cufft-cu12-11.0.2.54 nvidia-curand-cu12-10.3.2.106 nvidia-cusolver-
cu12-11.4.5.107 nvidia-cusparse-cu12-12.1.0.106 nvidia-nccl-cu12-2.20.5 nvidia-
nvjitlink-cu12-12.5.40 nvidia-nvtx-cu12-12.1.105 sentence-transformers-3.0.1
Collecting llama_index.llms.huggingface
  Downloading llama_index_llms_huggingface-0.2.3-py3-none-any.whl (10 kB)
Requirement already satisfied: huggingface-hub<0.24.0,>=0.23.0 in
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/usr/local/lib/python3.10/dist-packages (from llama index.llms.huggingface)
(0.23.4)
Requirement already satisfied: llama-index-core<0.11.0,>=0.10.41 in
/usr/local/lib/python3.10/dist-packages (from llama_index.llms.huggingface)
(0.10.48)
Collecting text-generation<0.8.0,>=0.7.0 (from llama_index.llms.huggingface)
 Downloading text generation-0.7.0-py3-none-any.whl (12 kB)
Requirement already satisfied: torch<3.0.0,>=2.1.2 in
/usr/local/lib/python3.10/dist-packages (from llama index.llms.huggingface)
(2.3.0+cu121)
Requirement already satisfied: transformers[torch]<5.0.0,>=4.37.0 in
/usr/local/lib/python3.10/dist-packages (from llama index.llms.huggingface)
(4.41.2)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub<0.24.0,>=0.23.0->llama_index.llms.huggingface)
(3.15.1)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface) (2023.6.0)
Requirement already satisfied: packaging>=20.9 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<0.24.0,>=0.23.0->llama index.llms.huggingface) (24.1)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub<0.24.0,>=0.23.0->llama_index.llms.huggingface)
(6.0.1)
Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub<0.24.0,>=0.23.0->llama_index.llms.huggingface)
(2.31.0)
Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub<0.24.0,>=0.23.0->llama_index.llms.huggingface)
(4.66.4)
Requirement already satisfied: typing-extensions>=3.7.4.3 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface) (4.12.2)
Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface) (2.0.30)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (3.9.5)
Requirement already satisfied: dataclasses-json in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (0.6.7)
Requirement already satisfied: deprecated>=1.2.9.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.2.14)
Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
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core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.0.8)
Requirement already satisfied: httpx in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (0.27.0)
Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface) (0.1.19)
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface)
(3.3)
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (3.8.1)
Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface)
(1.25.2)
Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.41->llama index.llms.huggingface)
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (2.0.3)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface)
(9.4.0)
Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (8.4.1)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (0.7.0)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface) (0.9.0)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.41->llama index.llms.huggingface) (1.14.1)
Requirement already satisfied: pydantic<3,>2 in /usr/local/lib/python3.10/dist-
packages (from text-generation<0.8.0,>=0.7.0->llama_index.llms.huggingface)
(2.7.4)
Requirement already satisfied: sympy in /usr/local/lib/python3.10/dist-packages
(from torch<3.0.0,>=2.1.2->llama index.llms.huggingface) (1.12.1)
Requirement already satisfied: jinja2 in /usr/local/lib/python3.10/dist-packages
(from torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (3.1.4)
Requirement already satisfied: nvidia-cuda-nvrtc-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (12.1.105)
Requirement already satisfied: nvidia-cuda-runtime-cu12==12.1.105 in
```

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/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (12.1.105)
Requirement already satisfied: nvidia-cuda-cupti-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama index.llms.huggingface) (12.1.105)
Requirement already satisfied: nvidia-cudnn-cu12==8.9.2.26 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->1lama index.llms.huggingface) (8.9.2.26)
Requirement already satisfied: nvidia-cublas-cu12==12.1.3.1 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (12.1.3.1)
Requirement already satisfied: nvidia-cufft-cu12==11.0.2.54 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (11.0.2.54)
Requirement already satisfied: nvidia-curand-cu12==10.3.2.106 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (10.3.2.106)
Requirement already satisfied: nvidia-cusolver-cu12==11.4.5.107 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama index.llms.huggingface) (11.4.5.107)
Requirement already satisfied: nvidia-cusparse-cu12==12.1.0.106 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (12.1.0.106)
Requirement already satisfied: nvidia-nccl-cu12==2.20.5 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (2.20.5)
Requirement already satisfied: nvidia-nvtx-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (12.1.105)
Requirement already satisfied: triton==2.3.0 in /usr/local/lib/python3.10/dist-
packages (from torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (2.3.0)
Requirement already satisfied: nvidia-nvjitlink-cu12 in
/usr/local/lib/python3.10/dist-packages (from nvidia-cusolver-
cu12==11.4.5.107->torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (12.5.40)
Requirement already satisfied: regex!=2019.12.17 in
/usr/local/lib/python3.10/dist-packages (from
transformers[torch]<5.0.0,>=4.37.0->llama index.llms.huggingface) (2024.5.15)
Requirement already satisfied: tokenizers<0.20,>=0.19 in
/usr/local/lib/python3.10/dist-packages (from
transformers[torch] < 5.0.0, >= 4.37.0 -> llama_index.llms.huggingface) (0.19.1)
Requirement already satisfied: safetensors>=0.4.1 in
/usr/local/lib/python3.10/dist-packages (from
transformers[torch] < 5.0.0, >= 4.37.0 -> 11ama_index.11ms.huggingface) (0.4.3)
Collecting accelerate>=0.21.0 (from
transformers[torch] < 5.0.0, >= 4.37.0 -> llama_index.llms.huggingface)
  Downloading accelerate-0.31.0-py3-none-any.whl (309 kB)
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309.4/309.4

kB 6.7 MB/s eta 0:00:00 Requirement already satisfied: psutil in /usr/local/lib/python3.10/distpackages (from accelerate>=0.21.0->transformers[torch]<5.0.0,>=4.37.0->llama ind ex.llms.huggingface) (5.9.5) Requirement already satisfied: aiosignal>=1.1.2 in /usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llamaindex-core<0.11.0,>=0.10.41->llama index.llms.huggingface) (1.3.1) Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/distpackages (from aiohttp<4.0.0,>=3.8.6->llama-indexcore<0.11.0,>=0.10.41->llama_index.llms.huggingface) (23.2.0) Requirement already satisfied: frozenlist>=1.1.1 in /usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llamaindex-core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.4.1) Requirement already satisfied: multidict<7.0,>=4.5 in /usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llamaindex-core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (6.0.5) Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/distpackages (from aiohttp<4.0.0,>=3.8.6->llama-indexcore<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.9.4) Requirement already satisfied: async-timeout<5.0,>=4.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llamaindex-core<0.11.0,>=0.10.41->llama index.llms.huggingface) (4.0.3) Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages (from httpx->llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (3.7.1)Requirement already satisfied: certifi in /usr/local/lib/python3.10/distpackages (from httpx->llama-indexcore<0.11.0,>=0.10.41->llama index.llms.huggingface) (2024.6.2) Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/distpackages (from httpx->llama-indexcore<0.11.0,>=0.10.41->llama index.llms.huggingface) (1.0.5)Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages (from httpx->llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (3.7)Requirement already satisfied: sniffio in /usr/local/lib/python3.10/distpackages (from httpx->llama-indexcore<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.3.1) Requirement already satisfied: h11<0.15,>=0.13 in /usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx->llama-indexcore<0.11.0,>=0.10.41->llama_index.llms.huggingface) (0.14.0) Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-indexcore<0.11.0,>=0.10.41->llama_index.llms.huggingface) (8.1.7) Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-

core<0.11.0,>=0.10.41->llama index.llms.huggingface) (1.4.2)

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Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.7.0)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic<3,>2->text-
generation<0.8.0,>=0.7.0->1lama index.1lms.huggingface) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic<3,>2->text-
generation<0.8.0,>=0.7.0->llama index.llms.huggingface) (2.18.4)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (3.0.3)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core<0.11.0,>=0.10.41->llama index.llms.huggingface) (1.0.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (3.21.3)
Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from
jinja2->torch<3.0.0,>=2.1.2->llama index.llms.huggingface) (2.1.5)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface) (2024.1)
Requirement already satisfied: mpmath<1.4.0,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from
sympy->torch<3.0.0,>=2.1.2->llama_index.llms.huggingface) (1.3.0)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.2.1)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface) (1.16.0)
Installing collected packages: text-generation, accelerate,
llama_index.llms.huggingface
```

```
Successfully installed accelerate-0.31.0 llama index.llms.huggingface-0.2.3
text-generation-0.7.0
Collecting assemblyai
 Downloading assemblyai-0.27.0-py3-none-any.whl (69 kB)
                           69.1/69.1 kB
3.0 MB/s eta 0:00:00
Requirement already satisfied: httpx>=0.19.0 in
/usr/local/lib/python3.10/dist-packages (from assemblyai) (0.27.0)
Requirement already satisfied: pydantic!=1.10.7,>=1.7.0 in
/usr/local/lib/python3.10/dist-packages (from assemblyai) (2.7.4)
Requirement already satisfied: typing-extensions>=3.7 in
/usr/local/lib/python3.10/dist-packages (from assemblyai) (4.12.2)
Collecting websockets>=11.0 (from assemblyai)
  Downloading websockets-12.0-cp310-cp310-manylinux_2_5_x86_64.manylinux1_x86_64
.manylinux_2_17_x86_64.manylinux2014_x86_64.whl (130 kB)
                           130.2/130.2
kB 10.5 MB/s eta 0:00:00
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.19.0->assemblyai) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.19.0->assemblyai) (2024.6.2)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.19.0->assemblyai) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx>=0.19.0->assemblyai) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.19.0->assemblyai) (1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from
httpcore==1.*->httpx>=0.19.0->assemblyai) (0.14.0)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from
pydantic!=1.10.7,>=1.7.0->assemblyai) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from
pydantic!=1.10.7,>=1.7.0->assemblyai) (2.18.4)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx>=0.19.0->assemblyai) (1.2.1)
Installing collected packages: websockets, assemblyai
Successfully installed assemblyai-0.27.0 websockets-12.0
Collecting llama_index.llms.huggingface_api
  Downloading llama_index_llms_huggingface_api-0.1.0-py3-none-any.whl (5.0 kB)
Requirement already satisfied: huggingface-hub<0.24.0,>=0.23.0 in
/usr/local/lib/python3.10/dist-packages (from llama_index.llms.huggingface_api)
(0.23.4)
Requirement already satisfied: llama-index-core<0.11.0,>=0.10.41 in
/usr/local/lib/python3.10/dist-packages (from llama_index.llms.huggingface_api)
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(0.10.48)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface_api) (3.15.1)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<0.24.0,>=0.23.0->1lama index.1lms.huggingface api) (2023.6.0)
Requirement already satisfied: packaging>=20.9 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface_api) (24.1)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface_api) (6.0.1)
Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-
packages (from huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface_api) (2.31.0)
Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-
hub<0.24.0,>=0.23.0->1lama_index.llms.huggingface_api) (4.66.4)
Requirement already satisfied: typing-extensions>=3.7.4.3 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<0.24.0,>=0.23.0->1lama index.llms.huggingface api) (4.12.2)
Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (2.0.30)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.9.5)
Requirement already satisfied: dataclasses-json in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (0.6.7)
Requirement already satisfied: deprecated>=1.2.9.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.2.14)
Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (1.0.8)
Requirement already satisfied: httpx in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api)
(0.27.0)
Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (0.1.19)
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
```

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core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.3)
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.8.1)
Requirement already satisfied: numpy<2.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (1.25.2)
Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.35.3)
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api)
(2.0.3)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (9.4.0)
Requirement already satisfied: tenacity!=8.4.0,<9.0.0,>=8.2.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (8.4.1)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (0.7.0)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (0.9.0)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api)
(1.14.1)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (4.0.3)
Requirement already satisfied: pydantic>=1.10 in /usr/local/lib/python3.10/dist-
packages (from llamaindex-py-client<0.2.0,>=0.1.18->llama-index-
```

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core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (2.7.4)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (2024.6.2)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (0.14.0)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (2024.5.15)
Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.7.0)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub<0.24.0,>=0.23.0->llama_index.llms.huggingface_api) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub<0.24.0,>=0.23.0->1lama index.1lms.huggingface api) (2.0.7)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.0.3)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.0.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (3.21.3)
Requirement already satisfied: python-dateutil>=2.8.2 in
```

```
/usr/local/lib/python3.10/dist-packages (from pandas->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (2024.1)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (1.2.1)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.10->llamaindex-py-
client<0.2.0,>=0.1.18->llama-index-
core<0.11.0,>=0.10.41->llama_index.llms.huggingface_api) (2.18.4)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->llama-index-
core<0.11.0,>=0.10.41->llama index.llms.huggingface api) (1.16.0)
Installing collected packages: llama_index.llms.huggingface_api
Successfully installed llama_index.llms.huggingface_api-0.1.0
Collecting git+https://github.com/huggingface/accelerate
  Cloning https://github.com/huggingface/accelerate to /tmp/pip-req-
build-x6jonjxq
  Running command git clone --filter=blob:none --quiet
https://github.com/huggingface/accelerate /tmp/pip-req-build-x6jonjxq
  Resolved https://github.com/huggingface/accelerate to commit
1f7a79b428749f45187ec69485f2c966fe21926e
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
 Preparing metadata (pyproject.toml) ... done
Requirement already satisfied: numpy<2.0.0,>=1.17 in
/usr/local/lib/python3.10/dist-packages (from accelerate==0.32.0.dev0) (1.25.2)
Requirement already satisfied: packaging>=20.0 in
/usr/local/lib/python3.10/dist-packages (from accelerate==0.32.0.dev0) (24.1)
Requirement already satisfied: psutil in /usr/local/lib/python3.10/dist-packages
(from accelerate==0.32.0.dev0) (5.9.5)
Requirement already satisfied: pyyaml in /usr/local/lib/python3.10/dist-packages
(from accelerate==0.32.0.dev0) (6.0.1)
Requirement already satisfied: torch>=1.10.0 in /usr/local/lib/python3.10/dist-
packages (from accelerate==0.32.0.dev0) (2.3.0+cu121)
Requirement already satisfied: huggingface-hub in
/usr/local/lib/python3.10/dist-packages (from accelerate==0.32.0.dev0) (0.23.4)
Requirement already satisfied: safetensors>=0.3.1 in
/usr/local/lib/python3.10/dist-packages (from accelerate==0.32.0.dev0) (0.4.3)
```

```
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from torch>=1.10.0->accelerate==0.32.0.dev0) (3.15.1)
Requirement already satisfied: typing-extensions>=4.8.0 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (4.12.2)
Requirement already satisfied: sympy in /usr/local/lib/python3.10/dist-packages
(from torch>=1.10.0->accelerate==0.32.0.dev0) (1.12.1)
Requirement already satisfied: networkx in /usr/local/lib/python3.10/dist-
packages (from torch>=1.10.0->accelerate==0.32.0.dev0) (3.3)
Requirement already satisfied: jinja2 in /usr/local/lib/python3.10/dist-packages
(from torch>=1.10.0->accelerate==0.32.0.dev0) (3.1.4)
Requirement already satisfied: fsspec in /usr/local/lib/python3.10/dist-packages
(from torch>=1.10.0->accelerate==0.32.0.dev0) (2023.6.0)
Requirement already satisfied: nvidia-cuda-nvrtc-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (12.1.105)
Requirement already satisfied: nvidia-cuda-runtime-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (12.1.105)
Requirement already satisfied: nvidia-cuda-cupti-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (12.1.105)
Requirement already satisfied: nvidia-cudnn-cu12==8.9.2.26 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (8.9.2.26)
Requirement already satisfied: nvidia-cublas-cu12==12.1.3.1 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (12.1.3.1)
Requirement already satisfied: nvidia-cufft-cu12==11.0.2.54 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (11.0.2.54)
Requirement already satisfied: nvidia-curand-cu12==10.3.2.106 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (10.3.2.106)
Requirement already satisfied: nvidia-cusolver-cu12==11.4.5.107 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (11.4.5.107)
Requirement already satisfied: nvidia-cusparse-cu12==12.1.0.106 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (12.1.0.106)
Requirement already satisfied: nvidia-nccl-cu12==2.20.5 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (2.20.5)
Requirement already satisfied: nvidia-nvtx-cu12==12.1.105 in
/usr/local/lib/python3.10/dist-packages (from
torch>=1.10.0->accelerate==0.32.0.dev0) (12.1.105)
Requirement already satisfied: triton==2.3.0 in /usr/local/lib/python3.10/dist-
packages (from torch>=1.10.0->accelerate==0.32.0.dev0) (2.3.0)
```

```
Requirement already satisfied: nvidia-nvjitlink-cu12 in
/usr/local/lib/python3.10/dist-packages (from nvidia-cusolver-
cu12==11.4.5.107->torch>=1.10.0->accelerate==0.32.0.dev0) (12.5.40)
Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub->accelerate==0.32.0.dev0) (2.31.0)
Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub->accelerate==0.32.0.dev0) (4.66.4)
Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from
jinja2->torch>=1.10.0->accelerate==0.32.0.dev0) (2.1.5)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub->accelerate==0.32.0.dev0) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-
packages (from requests->huggingface-hub->accelerate==0.32.0.dev0) (3.7)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub->accelerate==0.32.0.dev0) (2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests->huggingface-
hub->accelerate==0.32.0.dev0) (2024.6.2)
Requirement already satisfied: mpmath<1.4.0,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from
sympy->torch>=1.10.0->accelerate==0.32.0.dev0) (1.3.0)
Building wheels for collected packages: accelerate
  Building wheel for accelerate (pyproject.toml) ... done
  Created wheel for accelerate: filename=accelerate-0.32.0.dev0-py3-none-any.whl
size=311882
Stored in directory: /tmp/pip-ephem-wheel-cache-52kxb06j/wheels/f6/c7/9d/1b8a5
ca8353d9307733bc719107acb67acdc95063bba749f26
Successfully built accelerate
Installing collected packages: accelerate
  Attempting uninstall: accelerate
   Found existing installation: accelerate 0.31.0
   Uninstalling accelerate-0.31.0:
     Successfully uninstalled accelerate-0.31.0
Successfully installed accelerate-0.32.0.dev0
Collecting datasets
 Downloading datasets-2.20.0-py3-none-any.whl (547 kB)
                          547.8/547.8
kB 11.8 MB/s eta 0:00:00
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from datasets) (3.15.1)
Requirement already satisfied: numpy>=1.17 in /usr/local/lib/python3.10/dist-
packages (from datasets) (1.25.2)
Collecting pyarrow>=15.0.0 (from datasets)
```

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Downloading pyarrow-16.1.0-cp310-cp310-manylinux 2 28 x86 64.whl (40.8 MB)
                           40.8/40.8 MB
19.8 MB/s eta 0:00:00
Requirement already satisfied: pyarrow-hotfix in
/usr/local/lib/python3.10/dist-packages (from datasets) (0.6)
Collecting dill<0.3.9,>=0.3.0 (from datasets)
 Downloading dill-0.3.8-py3-none-any.whl (116 kB)
                           116.3/116.3
kB 17.7 MB/s eta 0:00:00
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-
packages (from datasets) (2.0.3)
Collecting requests>=2.32.2 (from datasets)
 Downloading requests-2.32.3-py3-none-any.whl (64 kB)
                           64.9/64.9 kB
10.3 MB/s eta 0:00:00
Requirement already satisfied: tqdm>=4.66.3 in
/usr/local/lib/python3.10/dist-packages (from datasets) (4.66.4)
Collecting xxhash (from datasets)
 Downloading
xxhash-3.4.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (194 kB)
                           194.1/194.1
kB 25.1 MB/s eta 0:00:00
Collecting multiprocess (from datasets)
 Downloading multiprocess-0.70.16-py310-none-any.whl (134 kB)
                           134.8/134.8
kB 20.8 MB/s eta 0:00:00
Requirement already satisfied: fsspec[http] <= 2024.5.0, >= 2023.1.0 in
/usr/local/lib/python3.10/dist-packages (from datasets) (2023.6.0)
Requirement already satisfied: aiohttp in /usr/local/lib/python3.10/dist-
packages (from datasets) (3.9.5)
Requirement already satisfied: huggingface-hub>=0.21.2 in
/usr/local/lib/python3.10/dist-packages (from datasets) (0.23.4)
Requirement already satisfied: packaging in /usr/local/lib/python3.10/dist-
packages (from datasets) (24.1)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist-
packages (from datasets) (6.0.1)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->datasets) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp->datasets) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->datasets) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->datasets) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp->datasets) (1.9.4)
```

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Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp->datasets) (4.0.3)
Requirement already satisfied: typing-extensions>=3.7.4.3 in
/usr/local/lib/python3.10/dist-packages (from huggingface-hub>=0.21.2->datasets)
(4.12.2)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.32.2->datasets)
(3.3.2)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-
packages (from requests>=2.32.2->datasets) (3.7)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.32.2->datasets)
(2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.32.2->datasets)
(2024.6.2)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.10/dist-packages (from pandas->datasets) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->datasets) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->datasets) (2024.1)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.8.2->pandas->datasets) (1.16.0)
Installing collected packages: xxhash, requests, pyarrow, dill, multiprocess,
datasets
  Attempting uninstall: requests
   Found existing installation: requests 2.31.0
   Uninstalling requests-2.31.0:
      Successfully uninstalled requests-2.31.0
  Attempting uninstall: pyarrow
    Found existing installation: pyarrow 14.0.2
   Uninstalling pyarrow-14.0.2:
      Successfully uninstalled pyarrow-14.0.2
```

```
ERROR: pip's dependency resolver does not currently take into account all
the packages that are installed. This behaviour is the source of the following
dependency conflicts.
cudf-cu12 24.4.1 requires pyarrow<15.0.0a0,>=14.0.1, but you have pyarrow 16.1.0
which is incompatible.
google-colab 1.0.0 requires requests == 2.31.0, but you have requests 2.32.3 which
is incompatible.
ibis-framework 8.0.0 requires pyarrow<16,>=2, but you have pyarrow 16.1.0 which
is incompatible.
Successfully installed datasets-2.20.0 dill-0.3.8 multiprocess-0.70.16
pyarrow-16.1.0 requests-2.32.3 xxhash-3.4.1
Collecting chromadb
  Downloading chromadb-0.5.3-py3-none-any.whl (559 kB)
                           559.5/559.5
kB 13.0 MB/s eta 0:00:00
Requirement already satisfied: build>=1.0.3 in
/usr/local/lib/python3.10/dist-packages (from chromadb) (1.2.1)
Requirement already satisfied: requests>=2.28 in /usr/local/lib/python3.10/dist-
packages (from chromadb) (2.32.3)
Requirement already satisfied: pydantic>=1.9 in /usr/local/lib/python3.10/dist-
packages (from chromadb) (2.7.4)
Collecting chroma-hnswlib==0.7.3 (from chromadb)
  Downloading
chroma_hnswlib-0.7.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl
(2.4 MB)
                           2.4/2.4 \text{ MB}
64.6 MB/s eta 0:00:00
Collecting fastapi>=0.95.2 (from chromadb)
  Downloading fastapi-0.111.0-py3-none-any.whl (91 kB)
                           92.0/92.0 kB
14.1 MB/s eta 0:00:00
Collecting uvicorn[standard]>=0.18.3 (from chromadb)
  Downloading uvicorn-0.30.1-py3-none-any.whl (62 kB)
                           62.4/62.4 kB
10.1 MB/s eta 0:00:00
Requirement already satisfied: numpy<2.0.0,>=1.22.5 in
/usr/local/lib/python3.10/dist-packages (from chromadb) (1.25.2)
Collecting posthog>=2.4.0 (from chromadb)
 Downloading posthog-3.5.0-py2.py3-none-any.whl (41 kB)
                           41.3/41.3 kB
7.1 MB/s eta 0:00:00
Requirement already satisfied: typing-extensions>=4.5.0 in
```

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/usr/local/lib/python3.10/dist-packages (from chromadb) (4.12.2)
Collecting onnxruntime>=1.14.1 (from chromadb)
  Downloading
onnxruntime-1.18.0-cp310-cp310-manylinux_2_27_x86_64.manylinux_2_28_x86_64.whl
(6.8 MB)
                           6.8/6.8 MB
82.5 MB/s eta 0:00:00
Collecting opentelemetry-api>=1.2.0 (from chromadb)
 Downloading opentelemetry_api-1.25.0-py3-none-any.whl (59 kB)
                           59.9/59.9 kB
9.9 MB/s eta 0:00:00
Collecting opentelemetry-exporter-otlp-proto-grpc>=1.2.0 (from chromadb)
  Downloading opentelemetry_exporter_otlp_proto_grpc-1.25.0-py3-none-any.whl (18
kB)
Collecting opentelemetry-instrumentation-fastapi>=0.41b0 (from chromadb)
  Downloading opentelemetry_instrumentation_fastapi-0.46b0-py3-none-any.whl (11
kB)
Collecting opentelemetry-sdk>=1.2.0 (from chromadb)
  Downloading opentelemetry_sdk-1.25.0-py3-none-any.whl (107 kB)
                           107.0/107.0
kB 14.5 MB/s eta 0:00:00
Requirement already satisfied: tokenizers>=0.13.2 in
/usr/local/lib/python3.10/dist-packages (from chromadb) (0.19.1)
Collecting pypika>=0.48.9 (from chromadb)
  Downloading PyPika-0.48.9.tar.gz (67 kB)
                           67.3/67.3 kB
9.3 MB/s eta 0:00:00
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
 Preparing metadata (pyproject.toml) ... done
Requirement already satisfied: tqdm>=4.65.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb) (4.66.4)
Collecting overrides>=7.3.1 (from chromadb)
  Downloading overrides-7.7.0-py3-none-any.whl (17 kB)
Requirement already satisfied: importlib-resources in
/usr/local/lib/python3.10/dist-packages (from chromadb) (6.4.0)
Requirement already satisfied: grpcio>=1.58.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb) (1.64.1)
Collecting bcrypt>=4.0.1 (from chromadb)
  Downloading bcrypt-4.1.3-cp39-abi3-manylinux_2_28_x86_64.whl (283 kB)
                           283.7/283.7
kB 38.9 MB/s eta 0:00:00
Requirement already satisfied: typer>=0.9.0 in
/usr/local/lib/python3.10/dist-packages (from chromadb) (0.12.3)
Collecting kubernetes>=28.1.0 (from chromadb)
  Downloading kubernetes-30.1.0-py2.py3-none-any.whl (1.7 MB)
```

1.7/1.7 MB

```
81.9 MB/s eta 0:00:00
Requirement already satisfied: tenacity>=8.2.3 in
/usr/local/lib/python3.10/dist-packages (from chromadb) (8.4.1)
Requirement already satisfied: PyYAML>=6.0.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb) (6.0.1)
Collecting mmh3>=4.0.1 (from chromadb)
  Downloading mmh3-4.1.0-cp310-cp310-manylinux_2_5_x86_64.manylinux1_x86_64.many
linux_2_17_x86_64.manylinux2014_x86_64.whl (67 kB)
                           67.6/67.6 kB
9.2 MB/s eta 0:00:00
Collecting or ison>=3.9.12 (from chromadb)
 Downloading
orjson-3.10.5-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (144
kB)
                           145.0/145.0
kB 22.7 MB/s eta 0:00:00
Requirement already satisfied: httpx>=0.27.0 in
/usr/local/lib/python3.10/dist-packages (from chromadb) (0.27.0)
Requirement already satisfied: packaging>=19.1 in
/usr/local/lib/python3.10/dist-packages (from build>=1.0.3->chromadb) (24.1)
Requirement already satisfied: pyproject_hooks in
/usr/local/lib/python3.10/dist-packages (from build>=1.0.3->chromadb) (1.1.0)
Requirement already satisfied: tomli>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from build>=1.0.3->chromadb) (2.0.1)
Collecting starlette<0.38.0,>=0.37.2 (from fastapi>=0.95.2->chromadb)
  Downloading starlette-0.37.2-py3-none-any.whl (71 kB)
                           71.9/71.9 kB
13.3 MB/s eta 0:00:00
Collecting fastapi-cli>=0.0.2 (from fastapi>=0.95.2->chromadb)
 Downloading fastapi_cli-0.0.4-py3-none-any.whl (9.5 kB)
Requirement already satisfied: jinja2>=2.11.2 in /usr/local/lib/python3.10/dist-
packages (from fastapi>=0.95.2->chromadb) (3.1.4)
Collecting python-multipart>=0.0.7 (from fastapi>=0.95.2->chromadb)
  Downloading python_multipart-0.0.9-py3-none-any.whl (22 kB)
Collecting ujson!=4.0.2,!=4.1.0,!=4.2.0,!=4.3.0,!=5.0.0,!=5.1.0,>=4.0.1 (from
fastapi>=0.95.2->chromadb)
  Downloading
ujson-5.10.0-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (53 kB)
                           53.6/53.6 kB
9.1 MB/s eta 0:00:00
Collecting email_validator>=2.0.0 (from fastapi>=0.95.2->chromadb)
 Downloading email_validator-2.2.0-py3-none-any.whl (33 kB)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx>=0.27.0->chromadb) (3.7.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.27.0->chromadb) (2024.6.2)
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Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.27.0->chromadb) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx>=0.27.0->chromadb) (3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from httpx>=0.27.0->chromadb) (1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from
httpcore==1.*->httpx>=0.27.0->chromadb) (0.14.0)
Requirement already satisfied: six>=1.9.0 in /usr/local/lib/python3.10/dist-
packages (from kubernetes>=28.1.0->chromadb) (1.16.0)
Requirement already satisfied: python-dateutil>=2.5.3 in
/usr/local/lib/python3.10/dist-packages (from kubernetes>=28.1.0->chromadb)
(2.8.2)
Requirement already satisfied: google-auth>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from kubernetes>=28.1.0->chromadb)
(2.27.0)
Requirement already satisfied: websocket-
client!=0.40.0,!=0.41.*,!=0.42.*,>=0.32.0 in /usr/local/lib/python3.10/dist-
packages (from kubernetes>=28.1.0->chromadb) (1.8.0)
Requirement already satisfied: requests-oauthlib in
/usr/local/lib/python3.10/dist-packages (from kubernetes>=28.1.0->chromadb)
Requirement already satisfied: oauthlib>=3.2.2 in
/usr/local/lib/python3.10/dist-packages (from kubernetes>=28.1.0->chromadb)
Requirement already satisfied: urllib3>=1.24.2 in
/usr/local/lib/python3.10/dist-packages (from kubernetes>=28.1.0->chromadb)
(2.0.7)
Collecting coloredlogs (from onnxruntime>=1.14.1->chromadb)
 Downloading coloredlogs-15.0.1-py2.py3-none-any.whl (46 kB)
                           46.0/46.0 kB
8.4 MB/s eta 0:00:00
Requirement already satisfied: flatbuffers in
/usr/local/lib/python3.10/dist-packages (from onnxruntime>=1.14.1->chromadb)
(24.3.25)
Requirement already satisfied: protobuf in /usr/local/lib/python3.10/dist-
packages (from onnxruntime>=1.14.1->chromadb) (3.20.3)
Requirement already satisfied: sympy in /usr/local/lib/python3.10/dist-packages
(from onnxruntime>=1.14.1->chromadb) (1.12.1)
Requirement already satisfied: deprecated>=1.2.6 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-
api>=1.2.0->chromadb) (1.2.14)
Requirement already satisfied: importlib-metadata<=7.1,>=6.0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-
api>=1.2.0->chromadb) (7.1.0)
Requirement already satisfied: googleapis-common-protos~=1.52 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-exporter-otlp-proto-
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grpc>=1.2.0->chromadb) (1.63.1)
Collecting opentelemetry-exporter-otlp-proto-common==1.25.0 (from opentelemetry-
exporter-otlp-proto-grpc>=1.2.0->chromadb)
 Downloading opentelemetry_exporter_otlp_proto_common-1.25.0-py3-none-any.whl
(17 kB)
Collecting opentelemetry-proto==1.25.0 (from opentelemetry-exporter-otlp-proto-
grpc>=1.2.0->chromadb)
 Downloading opentelemetry_proto-1.25.0-py3-none-any.whl (52 kB)
                           52.5/52.5 kB
9.3 MB/s eta 0:00:00
Collecting opentelemetry-instrumentation-asgi==0.46b0 (from opentelemetry-
instrumentation-fastapi>=0.41b0->chromadb)
  Downloading opentelemetry_instrumentation_asgi-0.46b0-py3-none-any.whl (14 kB)
Collecting opentelemetry-instrumentation==0.46b0 (from opentelemetry-
instrumentation-fastapi>=0.41b0->chromadb)
  Downloading opentelemetry instrumentation-0.46b0-py3-none-any.whl (29 kB)
Collecting opentelemetry-semantic-conventions==0.46b0 (from opentelemetry-
instrumentation-fastapi>=0.41b0->chromadb)
  Downloading opentelemetry_semantic_conventions-0.46b0-py3-none-any.whl (130
kB)
                           130.5/130.5
kB 21.0 MB/s eta 0:00:00
Collecting opentelemetry-util-http==0.46b0 (from opentelemetry-
instrumentation-fastapi>=0.41b0->chromadb)
  Downloading opentelemetry_util_http-0.46b0-py3-none-any.whl (6.9 kB)
Requirement already satisfied: setuptools>=16.0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-
instrumentation==0.46b0->opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb) (67.7.2)
Requirement already satisfied: wrapt<2.0.0,>=1.0.0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-
instrumentation==0.46b0->opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb) (1.14.1)
Collecting asgiref~=3.0 (from opentelemetry-instrumentation-
asgi==0.46b0->opentelemetry-instrumentation-fastapi>=0.41b0->chromadb)
  Downloading asgiref-3.8.1-py3-none-any.whl (23 kB)
Collecting monotonic>=1.5 (from posthog>=2.4.0->chromadb)
  Downloading monotonic-1.6-py2.py3-none-any.whl (8.2 kB)
Collecting backoff>=1.10.0 (from posthog>=2.4.0->chromadb)
  Downloading backoff-2.2.1-py3-none-any.whl (15 kB)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.9->chromadb) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from pydantic>=1.9->chromadb) (2.18.4)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.28->chromadb) (3.3.2)
Requirement already satisfied: huggingface-hub<1.0,>=0.16.4 in
```

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/usr/local/lib/python3.10/dist-packages (from tokenizers>=0.13.2->chromadb)
(0.23.4)
Requirement already satisfied: click>=8.0.0 in /usr/local/lib/python3.10/dist-
packages (from typer>=0.9.0->chromadb) (8.1.7)
Requirement already satisfied: shellingham>=1.3.0 in
/usr/local/lib/python3.10/dist-packages (from typer>=0.9.0->chromadb) (1.5.4)
Requirement already satisfied: rich>=10.11.0 in /usr/local/lib/python3.10/dist-
packages (from typer>=0.9.0->chromadb) (13.7.1)
Collecting httptools>=0.5.0 (from uvicorn[standard]>=0.18.3->chromadb)
 Downloading httptools-0.6.1-cp310-cp310-manylinux_2_5_x86_64.manylinux1_x86_64
.manylinux_2_17_x86_64.manylinux2014_x86_64.whl (341 kB)
                           341.4/341.4
kB 36.2 MB/s eta 0:00:00
Collecting python-dotenv>=0.13 (from uvicorn[standard]>=0.18.3->chromadb)
  Downloading python dotenv-1.0.1-py3-none-any.whl (19 kB)
Collecting uvloop!=0.15.0,!=0.15.1,>=0.14.0 (from
uvicorn[standard]>=0.18.3->chromadb)
 Downloading
uvloop-0.19.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (3.4)
MB)
                           3.4/3.4 MB
96.2 MB/s eta 0:00:00
Collecting watchfiles>=0.13 (from uvicorn[standard]>=0.18.3->chromadb)
 Downloading
watchfiles-0.22.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl
(1.2 MB)
                           1.2/1.2 MB
83.9 MB/s eta 0:00:00
Requirement already satisfied: websockets>=10.4 in
/usr/local/lib/python3.10/dist-packages (from
uvicorn[standard]>=0.18.3->chromadb) (12.0)
Collecting dnspython>=2.0.0 (from
email_validator>=2.0.0->fastapi>=0.95.2->chromadb)
 Downloading dnspython-2.6.1-py3-none-any.whl (307 kB)
                           307.7/307.7
kB 33.7 MB/s eta 0:00:00
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-
auth>=1.0.1->kubernetes>=28.1.0->chromadb) (5.3.3)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-
auth>=1.0.1->kubernetes>=28.1.0->chromadb) (0.4.0)
Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.10/dist-
packages (from google-auth>=1.0.1->kubernetes>=28.1.0->chromadb) (4.9)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub<1.0,>=0.16.4->tokenizers>=0.13.2->chromadb)
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(3.15.1)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from huggingface-
hub<1.0,>=0.16.4->tokenizers>=0.13.2->chromadb) (2023.6.0)
Requirement already satisfied: zipp>=0.5 in /usr/local/lib/python3.10/dist-
packages (from importlib-metadata<=7.1,>=6.0->opentelemetry-
api>=1.2.0->chromadb) (3.19.2)
Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from
jinja2>=2.11.2->fastapi>=0.95.2->chromadb) (2.1.5)
Requirement already satisfied: markdown-it-py>=2.2.0 in
/usr/local/lib/python3.10/dist-packages (from
rich>=10.11.0->typer>=0.9.0->chromadb) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in
/usr/local/lib/python3.10/dist-packages (from
rich>=10.11.0->typer>=0.9.0->chromadb) (2.16.1)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from anyio->httpx>=0.27.0->chromadb) (1.2.1)
Collecting humanfriendly>=9.1 (from coloredlogs->onnxruntime>=1.14.1->chromadb)
 Downloading humanfriendly-10.0-py2.py3-none-any.whl (86 kB)
                           86.8/86.8 kB
14.2 MB/s eta 0:00:00
Requirement already satisfied: mpmath<1.4.0,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from
sympy->onnxruntime>=1.14.1->chromadb) (1.3.0)
Requirement already satisfied: mdurl~=0.1 in /usr/local/lib/python3.10/dist-
packages (from markdown-it-py>=2.2.0->rich>=10.11.0->typer>=0.9.0->chromadb)
(0.1.2)
Requirement already satisfied: pyasn1<0.7.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1->google-
auth>=1.0.1->kubernetes>=28.1.0->chromadb) (0.6.0)
Building wheels for collected packages: pypika
  Building wheel for pypika (pyproject.toml) ... done
 Created wheel for pypika: filename=PyPika-0.48.9-py2.py3-none-any.whl
size=53725
sha256=5439519edf4f7cb43b1a7e77b9699b926ac42b62b6041fe8a5db148cb7674bc4
  Stored in directory: /root/.cache/pip/wheels/e1/26/51/d0bffb3d2fd82256676d7ad3
003faea3bd6dddc9577af665f4
Successfully built pypika
Installing collected packages: pypika, monotonic, mmh3, uvloop, uvicorn, ujson,
python-multipart, python-dotenv, overrides, orjson, opentelemetry-util-http,
opentelemetry-proto, humanfriendly, httptools, dnspython, chroma-hnswlib,
bcrypt, backoff, asgiref, watchfiles, starlette, posthog, opentelemetry-
exporter-otlp-proto-common, opentelemetry-api, email validator, coloredlogs,
opentelemetry-semantic-conventions, opentelemetry-instrumentation, onnxruntime,
kubernetes, opentelemetry-sdk, opentelemetry-instrumentation-asgi, fastapi-cli,
opentelemetry-instrumentation-fastapi, opentelemetry-exporter-otlp-proto-grpc,
fastapi, chromadb
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Successfully installed asgiref-3.8.1 backoff-2.2.1 bcrypt-4.1.3 chroma-
hnswlib-0.7.3 chromadb-0.5.3 coloredlogs-15.0.1 dnspython-2.6.1
email_validator-2.2.0 fastapi-0.111.0 fastapi-cli-0.0.4 httptools-0.6.1
humanfriendly-10.0 kubernetes-30.1.0 mmh3-4.1.0 monotonic-1.6 onnxruntime-1.18.0
opentelemetry-api-1.25.0 opentelemetry-exporter-otlp-proto-common-1.25.0
opentelemetry-exporter-otlp-proto-grpc-1.25.0 opentelemetry-
instrumentation-0.46b0 opentelemetry-instrumentation-asgi-0.46b0 opentelemetry-
instrumentation-fastapi-0.46b0 opentelemetry-proto-1.25.0 opentelemetry-
sdk-1.25.0 opentelemetry-semantic-conventions-0.46b0 opentelemetry-util-
http-0.46b0 orjson-3.10.5 overrides-7.7.0 posthog-3.5.0 pypika-0.48.9 python-
dotenv-1.0.1 python-multipart-0.0.9 starlette-0.37.2 ujson-5.10.0 uvicorn-0.30.1
uvloop-0.19.0 watchfiles-0.22.0
Collecting llama_index.vector_stores.chroma
  Downloading llama_index_vector_stores_chroma-0.1.9-py3-none-any.whl (5.0 kB)
Requirement already satisfied: chromadb<0.6.0,>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from llama_index.vector_stores.chroma)
(0.5.3)
Requirement already satisfied: llama-index-core<0.11.0,>=0.10.1 in
/usr/local/lib/python3.10/dist-packages (from llama_index.vector_stores.chroma)
(0.10.48)
Requirement already satisfied: build>=1.0.3 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (1.2.1)
Requirement already satisfied: requests>=2.28 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(2.32.3)
Requirement already satisfied: pydantic>=1.9 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (2.7.4)
Requirement already satisfied: chroma-hnswlib==0.7.3 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (0.7.3)
Requirement already satisfied: fastapi>=0.95.2 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (0.111.0)
Requirement already satisfied: uvicorn[standard]>=0.18.3 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (0.30.1)
Requirement already satisfied: numpy<2.0.0,>=1.22.5 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.25.2)
Requirement already satisfied: posthog>=2.4.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (3.5.0)
Requirement already satisfied: typing-extensions>=4.5.0 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (4.12.2)
Requirement already satisfied: onnxruntime>=1.14.1 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.18.0)
Requirement already satisfied: opentelemetry-api>=1.2.0 in
```

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/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.25.0)
Requirement already satisfied: opentelemetry-exporter-otlp-proto-grpc>=1.2.0 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (1.25.0)
Requirement already satisfied: opentelemetry-instrumentation-fastapi>=0.41b0 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (0.46b0)
Requirement already satisfied: opentelemetry-sdk>=1.2.0 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.25.0)
Requirement already satisfied: tokenizers>=0.13.2 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (0.19.1)
Requirement already satisfied: pypika>=0.48.9 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(0.48.9)
Requirement already satisfied: tqdm>=4.65.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(4.66.4)
Requirement already satisfied: overrides>=7.3.1 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (7.7.0)
Requirement already satisfied: importlib-resources in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (6.4.0)
Requirement already satisfied: grpcio>=1.58.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
Requirement already satisfied: bcrypt>=4.0.1 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (4.1.3)
Requirement already satisfied: typer>=0.9.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(0.12.3)
Requirement already satisfied: kubernetes>=28.1.0 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (30.1.0)
Requirement already satisfied: tenacity>=8.2.3 in
/usr/local/lib/python3.10/dist-packages (from
chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (8.4.1)
Requirement already satisfied: PyYAML>=6.0.0 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (6.0.1)
Requirement already satisfied: mmh3>=4.0.1 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (4.1.0)
Requirement already satisfied: or json>=3.9.12 in /usr/local/lib/python3.10/dist-
packages (from chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(3.10.5)
Requirement already satisfied: httpx>=0.27.0 in /usr/local/lib/python3.10/dist-
```

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packages (from chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(0.27.0)
Requirement already satisfied: SQLAlchemy[asyncio]>=1.4.49 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->1lama index.vector stores.chroma) (2.0.30)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.6 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (3.9.5)
Requirement already satisfied: dataclasses-json in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (0.6.7)
Requirement already satisfied: deprecated>=1.2.9.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama index.vector stores.chroma) (1.2.14)
Requirement already satisfied: dirtyjson<2.0.0,>=1.0.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (1.0.8)
Requirement already satisfied: fsspec>=2023.5.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama index.vector stores.chroma) (2023.6.0)
Requirement already satisfied: llamaindex-py-client<0.2.0,>=0.1.18 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (0.1.19)
Requirement already satisfied: nest-asyncio<2.0.0,>=1.5.8 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (1.6.0)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (3.3)
Requirement already satisfied: nltk<4.0.0,>=3.8.1 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (3.8.1)
Requirement already satisfied: openai>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
core<0.11.0,>=0.10.1->llama index.vector stores.chroma) (1.35.3)
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-packages
(from llama-index-core<0.11.0,>=0.10.1->llama index.vector stores.chroma)
Requirement already satisfied: pillow>=9.0.0 in /usr/local/lib/python3.10/dist-
packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (9.4.0)
Requirement already satisfied: tiktoken>=0.3.3 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (0.7.0)
Requirement already satisfied: typing-inspect>=0.8.0 in
/usr/local/lib/python3.10/dist-packages (from llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (0.9.0)
Requirement already satisfied: wrapt in /usr/local/lib/python3.10/dist-packages
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(from llama-index-core<0.11.0,>=0.10.1->llama index.vector stores.chroma)
(1.14.1)
Requirement already satisfied: aiosignal>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama index.vector stores.chroma) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (23.2.0)
Requirement already satisfied: frozenlist>=1.1.1 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama index.vector_stores.chroma) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama index.vector_stores.chroma) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/dist-
packages (from aiohttp<4.0.0,>=3.8.6->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in
/usr/local/lib/python3.10/dist-packages (from aiohttp<4.0.0,>=3.8.6->llama-
index-core<0.11.0,>=0.10.1->llama index.vector stores.chroma) (4.0.3)
Requirement already satisfied: packaging>=19.1 in
/usr/local/lib/python3.10/dist-packages (from
build>=1.0.3->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (24.1)
Requirement already satisfied: pyproject_hooks in
/usr/local/lib/python3.10/dist-packages (from
build>=1.0.3->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.1.0)
Requirement already satisfied: tomli>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from
build>=1.0.3->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (2.0.1)
Requirement already satisfied: starlette<0.38.0,>=0.37.2 in
/usr/local/lib/python3.10/dist-packages (from
fastapi>=0.95.2->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(0.37.2)
Requirement already satisfied: fastapi-cli>=0.0.2 in
/usr/local/lib/python3.10/dist-packages (from
fastapi>=0.95.2->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
Requirement already satisfied: jinja2>=2.11.2 in /usr/local/lib/python3.10/dist-
packages (from
fastapi>=0.95.2->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(3.1.4)
Requirement already satisfied: python-multipart>=0.0.7 in
/usr/local/lib/python3.10/dist-packages (from
fastapi>=0.95.2->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(0.0.9)
Requirement already satisfied:
ujson!=4.0.2,!=4.1.0,!=4.2.0,!=4.3.0,!=5.0.0,!=5.1.0,>=4.0.1 in
/usr/local/lib/python3.10/dist-packages (from
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fastapi>=0.95.2->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(5.10.0)
Requirement already satisfied: email_validator>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from
fastapi>=0.95.2->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(2.2.0)
Requirement already satisfied: anyio in /usr/local/lib/python3.10/dist-packages
(from httpx>=0.27.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
Requirement already satisfied: certifi in /usr/local/lib/python3.10/dist-
packages (from
httpx>=0.27.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(2024.6.2)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.10/dist-
packages (from
httpx>=0.27.0->chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (1.0.5)
Requirement already satisfied: idna in /usr/local/lib/python3.10/dist-packages
(from httpx>=0.27.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(3.7)
Requirement already satisfied: sniffio in /usr/local/lib/python3.10/dist-
packages (from
httpx>=0.27.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (1.3.1)
Requirement already satisfied: h11<0.15,>=0.13 in
/usr/local/lib/python3.10/dist-packages (from httpcore==1.*->httpx>=0.27.0->chro
madb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (0.14.0)
Requirement already satisfied: six>=1.9.0 in /usr/local/lib/python3.10/dist-
packages (from
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
Requirement already satisfied: python-dateutil>=2.5.3 in
/usr/local/lib/python3.10/dist-packages (from
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(2.8.2)
Requirement already satisfied: google-auth>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(2.27.0)
Requirement already satisfied: websocket-
client!=0.40.0,!=0.41.*,!=0.42.*,>=0.32.0 in /usr/local/lib/python3.10/dist-
packages (from
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(1.8.0)
Requirement already satisfied: requests-oauthlib in
/usr/local/lib/python3.10/dist-packages (from
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
Requirement already satisfied: oauthlib>=3.2.2 in
/usr/local/lib/python3.10/dist-packages (from
```

```
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(3.2.2)
Requirement already satisfied: urllib3>=1.24.2 in
/usr/local/lib/python3.10/dist-packages (from
kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(2.0.7)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-packages
(from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in
/usr/local/lib/python3.10/dist-packages (from nltk<4.0.0,>=3.8.1->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (2024.5.15)
Requirement already satisfied: coloredlogs in /usr/local/lib/python3.10/dist-
packages (from
onnxruntime>=1.14.1->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(15.0.1)
Requirement already satisfied: flatbuffers in /usr/local/lib/python3.10/dist-
packages (from
onnxruntime>=1.14.1->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
Requirement already satisfied: protobuf in /usr/local/lib/python3.10/dist-
packages (from
onnxruntime>=1.14.1->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(3.20.3)
Requirement already satisfied: sympy in /usr/local/lib/python3.10/dist-packages
onnxruntime>=1.14.1->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(1.12.1)
Requirement already satisfied: distro<2,>=1.7.0 in /usr/lib/python3/dist-
packages (from openai>=1.1.0->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (1.7.0)
Requirement already satisfied: importlib-metadata<=7.1,>=6.0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-
api>=1.2.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (7.1.0)
Requirement already satisfied: googleapis-common-protos~=1.52 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-exporter-otlp-proto-
grpc>=1.2.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.63.1)
Requirement already satisfied: opentelemetry-exporter-otlp-proto-common==1.25.0
in /usr/local/lib/python3.10/dist-packages (from opentelemetry-exporter-otlp-
proto-grpc>=1.2.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(1.25.0)
Requirement already satisfied: opentelemetry-proto==1.25.0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-exporter-otlp-proto-
grpc>=1.2.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.25.0)
Requirement already satisfied: opentelemetry-instrumentation-asgi==0.46b0 in
```

```
/usr/local/lib/python3.10/dist-packages (from opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(0.46b0)
Requirement already satisfied: opentelemetry-instrumentation==0.46b0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(0.46b0)
Requirement already satisfied: opentelemetry-semantic-conventions==0.46b0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(0.46b0)
Requirement already satisfied: opentelemetry-util-http==0.46b0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(0.46b0)
Requirement already satisfied: setuptools>=16.0 in
/usr/local/lib/python3.10/dist-packages (from opentelemetry-
instrumentation==0.46b0->opentelemetry-instrumentation-
fastapi>=0.41b0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(67.7.2)
Requirement already satisfied: asgiref~=3.0 in /usr/local/lib/python3.10/dist-
packages (from opentelemetry-instrumentation-asgi==0.46b0->opentelemetry-
instrumentation-
fastapi>=0.41b0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(3.8.1)
Requirement already satisfied: monotonic>=1.5 in /usr/local/lib/python3.10/dist-
packages (from
posthog>=2.4.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (1.6)
Requirement already satisfied: backoff>=1.10.0 in
/usr/local/lib/python3.10/dist-packages (from
posthog>=2.4.0->chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma)
Requirement already satisfied: annotated-types>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from
pydantic>=1.9->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (0.7.0)
Requirement already satisfied: pydantic-core==2.18.4 in
/usr/local/lib/python3.10/dist-packages (from
pydantic>=1.9->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(2.18.4)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from
requests>=2.28->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma)
(3.3.2)
Requirement already satisfied: greenlet!=0.4.17 in
/usr/local/lib/python3.10/dist-packages (from
SQLAlchemy[asyncio]>=1.4.49->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (3.0.3)
Requirement already satisfied: huggingface-hub<1.0,>=0.16.4 in
```

```
/usr/local/lib/python3.10/dist-packages (from
tokenizers>=0.13.2->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(0.23.4)
Requirement already satisfied: shellingham>=1.3.0 in
/usr/local/lib/python3.10/dist-packages (from
typer>=0.9.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (1.5.4)
Requirement already satisfied: rich>=10.11.0 in /usr/local/lib/python3.10/dist-
packages (from
typer>=0.9.0->chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (13.7.1)
Requirement already satisfied: mypy-extensions>=0.3.0 in
/usr/local/lib/python3.10/dist-packages (from typing-inspect>=0.8.0->llama-
index-core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (1.0.0)
Requirement already satisfied: httptools>=0.5.0 in
/usr/local/lib/python3.10/dist-packages (from uvicorn[standard]>=0.18.3->chromad
b<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (0.6.1)
Requirement already satisfied: python-dotenv>=0.13 in
/usr/local/lib/python3.10/dist-packages (from uvicorn[standard]>=0.18.3->chromad
b<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.0.1)
Requirement already satisfied: uvloop!=0.15.0,!=0.15.1,>=0.14.0 in
/usr/local/lib/python3.10/dist-packages (from uvicorn[standard]>=0.18.3->chromad
b<0.6.0, >=0.4.0->llama index.vector stores.chroma) (0.19.0)
Requirement already satisfied: watchfiles>=0.13 in
/usr/local/lib/python3.10/dist-packages (from uvicorn[standard]>=0.18.3->chromad
b<0.6.0, >=0.4.0->1lama index.vector stores.chroma) (0.22.0)
Requirement already satisfied: websockets>=10.4 in
/usr/local/lib/python3.10/dist-packages (from uvicorn[standard]>=0.18.3->chromad
b<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (12.0)
Requirement already satisfied: marshmallow<4.0.0,>=3.18.0 in
/usr/local/lib/python3.10/dist-packages (from dataclasses-json->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (3.21.3)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-
core<0.11.0,>=0.10.1->llama_index.vector_stores.chroma) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-
packages (from pandas->llama-index-
core<0.11.0,>=0.10.1->llama index.vector stores.chroma) (2024.1)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from
anyio->httpx>=0.27.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma)
(1.2.1)
Requirement already satisfied: dnspython>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from email_validator>=2.0.0->fastapi>=0
.95.2->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (2.6.1)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth>=1.0.1->kubernetes>=28
.1.0->chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (5.3.3)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-auth>=1.0.1->kubernetes>=28
```

```
.1.0->chromadb<0.6.0,>=0.4.0->llama index.vector_stores.chroma) (0.4.0)
Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.10/dist-
packages (from google-auth>=1.0.1->kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->l
lama_index.vector_stores.chroma) (4.9)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-
packages (from huggingface-hub<1.0,>=0.16.4->tokenizers>=0.13.2->chromadb<0.6.0,
>=0.4.0->llama index.vector stores.chroma) (3.15.1)
Requirement already satisfied: zipp>=0.5 in /usr/local/lib/python3.10/dist-
packages (from importlib-metadata<=7.1,>=6.0->opentelemetry-
api>=1.2.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (3.19.2)
Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from jinja2>=2.11.2->fastapi>=0.95.2->c
hromadb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (2.1.5)
Requirement already satisfied: markdown-it-py>=2.2.0 in
/usr/local/lib/python3.10/dist-packages (from rich>=10.11.0->typer>=0.9.0->chrom
adb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in
/usr/local/lib/python3.10/dist-packages (from rich>=10.11.0->typer>=0.9.0->chrom
adb<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (2.16.1)
Requirement already satisfied: humanfriendly>=9.1 in
/usr/local/lib/python3.10/dist-packages (from coloredlogs->onnxruntime>=1.14.1->
chromadb<0.6.0,>=0.4.0->llama index.vector stores.chroma) (10.0)
Requirement already satisfied: mpmath<1.4.0,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from sympy->onnxruntime>=1.14.1->chroma
db<0.6.0,>=0.4.0->llama_index.vector_stores.chroma) (1.3.0)
Requirement already satisfied: mdurl~=0.1 in /usr/local/lib/python3.10/dist-
packages (from markdown-it-py>=2.2.0->rich>=10.11.0->typer>=0.9.0->chromadb<0.6.
0,>=0.4.0->llama_index.vector_stores.chroma) (0.1.2)
Requirement already satisfied: pyasn1<0.7.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1->google-auth
>=1.0.1->kubernetes>=28.1.0->chromadb<0.6.0,>=0.4.0->llama_index.vector_stores.c
hroma) (0.6.0)
Installing collected packages: llama_index.vector_stores.chroma
Successfully installed llama_index.vector_stores.chroma-0.1.9
API Key
```

[]: HF_TOKEN='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'

Data Loading

```
[]: from datasets import load_dataset
    ds = load_dataset("rag-datasets/rag-mini-bioasq", "text-corpus")
```

/usr/local/lib/python3.10/dist-packages/huggingface_hub/utils/_token.py:89: UserWarning:

The secret `HF_TOKEN` does not exist in your Colab secrets.

To authenticate with the Hugging Face Hub, create a token in your settings tab (https://huggingface.co/settings/tokens), set it as secret in your Google Colab

```
and restart your session.
    You will be able to reuse this secret in all of your notebooks.
    Please note that authentication is recommended but still optional to access
    public models or datasets.
      warnings.warn(
    Downloading readme:
                          0%1
                                        | 0.00/813 [00:00<?, ?B/s]
    Downloading data:
                                     | 0.00/24.5M [00:00<?, ?B/s]
    Generating passages split:
                                 0%1
                                               | 0/40221 [00:00<?, ? examples/s]
[]: with open('data1/txt1.txt', 'w') as f:
         for x in range (40220):
             f.write(ds["passages"][x]["passage"] + "\n\n")
[]: from llama_index.core import VectorStoreIndex, SimpleDirectoryReader,Settings
     from llama_index.embeddings.huggingface import HuggingFaceEmbedding
     from llama_index.llms.huggingface_api import HuggingFaceInferenceAPI
     from llama_index.llms.anthropic import Anthropic
     Settings.embed_model = HuggingFaceEmbedding(model_name="BAAI/bge-base-en-v1.5")
     Settings.llm =HuggingFaceInferenceAPI(model_name="HuggingFaceH4/

¬zephyr-7b-alpha", token=HF_TOKEN)
     embed_model = HuggingFaceEmbedding(model_name="BAAI/bge-base-en-v1.5")
     llm =HuggingFaceInferenceAPI(model_name="HuggingFaceH4/zephyr-7b-alpha",
      →token=HF_TOKEN)
                    0%1
                                 | 0.00/349 [00:00<?, ?B/s]
    modules.json:
                                                       | 0.00/124 [00:00<?, ?B/s]
    config_sentence_transformers.json:
                                         0%1
    README.md:
                 0%1
                              | 0.00/94.6k [00:00<?, ?B/s]
    sentence_bert_config.json:
                                 0%|
                                               | 0.00/52.0 [00:00<?, ?B/s]
    /usr/local/lib/python3.10/dist-packages/huggingface_hub/file_download.py:1132:
    FutureWarning: `resume_download` is deprecated and will be removed in version
    1.0.0. Downloads always resume when possible. If you want to force a new
    download, use `force_download=True`.
      warnings.warn(
                                | 0.00/777 [00:00<?, ?B/s]
    config.json:
                         0%1
                                       | 0.00/438M [00:00<?, ?B/s]
    model.safetensors:
                                           | 0.00/366 [00:00<?, ?B/s]
    tokenizer_config.json:
                             0%|
                              | 0.00/232k [00:00<?, ?B/s]
    vocab.txt:
                 0%1
                      0%|
                                   | 0.00/711k [00:00<?, ?B/s]
    tokenizer.json:
    special_tokens_map.json:
                               0%|
                                             | 0.00/125 [00:00<?, ?B/s]
```

```
0%| | 0.00/190 [00:00<?, ?B/s]
    1_Pooling/config.json:
[]: data = SimpleDirectoryReader(input_dir="/content/data1").load_data()
    1 Indexing
        Storing
[]: import chromadb
    from llama_index.core import VectorStoreIndex, SimpleDirectoryReader
    from llama_index.vector_stores.chroma import ChromaVectorStore
    from llama_index.core import StorageContext
[]: | db = chromadb.PersistentClient(path="./chroma_db")
[]: chroma_collection = db.get_or_create_collection("quickstart")
[]: vector_store = ChromaVectorStore(chroma_collection=chroma_collection)
    storage_context = StorageContext.from_defaults(vector_store=vector_store)
[]: index = VectorStoreIndex.from_documents(
        data , storage_context=storage_context
[]: index
[]: <llama_index.core.indices.vector_store.base.VectorStoreIndex at 0x7e0fe4325f90>
       Querying
[]: import torch
    from transformers import AutoModelForSpeechSeq2Seq, AutoProcessor, pipeline
[]: device = "cuda:0" if torch.cuda.is_available() else "cpu"
    torch_dtype = torch.float16 if torch.cuda.is_available() else torch.float32
[]: model_id = "openai/whisper-large-v3"
    model = AutoModelForSpeechSeq2Seq.from_pretrained(
        model_id, torch_dtype=torch_dtype, low_cpu_mem_usage=True,_

use_safetensors=True

    model.to(device)
    processor = AutoProcessor.from_pretrained(model_id)
```

| 0.00/1.27k [00:00<?, ?B/s]

config.json:

0%|

```
| 0.00/3.09G [00:00<?, ?B/s]
    model.safetensors:
                         0%1
    generation_config.json:
                                           | 0.00/3.90k [00:00<?, ?B/s]
                              0%1
    preprocessor_config.json:
                                0%|
                                             | 0.00/340 [00:00<?, ?B/s]
    tokenizer_config.json:
                                          | 0.00/283k [00:00<?, ?B/s]
                             0%|
    vocab.json:
                               | 0.00/1.04M [00:00<?, ?B/s]
                      0%|
                                   | 0.00/2.48M [00:00<?, ?B/s]
    tokenizer.json:
                               | 0.00/494k [00:00<?, ?B/s]
    merges.txt:
                  0%|
                                    | 0.00/52.7k [00:00<?, ?B/s]
    normalizer.json:
                       0%1
                         0%1
                                      | 0.00/34.6k [00:00<?, ?B/s]
    added_tokens.json:
    special_tokens_map.json:
                               0%|
                                            | 0.00/2.07k [00:00<?, ?B/s]
    Special tokens have been added in the vocabulary, make sure the associated word
    embeddings are fine-tuned or trained.
[]: pipe = pipeline(
         "automatic-speech-recognition",
         model=model,
         tokenizer=processor.tokenizer,
         feature_extractor=processor.feature_extractor,
```

```
model=model,
tokenizer=processor.tokenizer,
feature_extractor=processor.feature_extractor,
max_new_tokens=128,
chunk_length_s=30,
batch_size=16,
return_timestamps=True,
torch_dtype=torch_dtype,
device=device,
)
```

```
[]: result = pipe("/content/tamil_4.weba",generate_kwargs={"task": "translate"})
[]: print(result["text"])
```

study on hidden Markov models.

4 Result

```
[]: query_engine = index.as_query_engine()
[]: response = query_engine.query(result["text"])
[]: print(str(response))
```

The study presented in the given context information is not directly related to hidden Markov models. However, the study mentioned in the query is related to

hidden Markov models. The study presented in the given context information is about a combined HMM-based method for topology prediction and signal peptide prediction in transmembrane beta-barrels proteins. The study discusses the use of a genetic algorithm for training the model and the Posterior-Viterbi algorithm for decoding. The study also compares the performance of the genetic algorithm with the Baum-Welch algorithm.

5 Evaluation

```
[]: from datasets import load_dataset
     ds = load_dataset("rag-datasets/rag-mini-bioasq", "question-answer-passages")
    Downloading data:
                        0%|
                                     | 0.00/1.29M [00:00<?, ?B/s]
                             0%1
                                          | 0/4719 [00:00<?, ? examples/s]
    Generating test split:
[]: from sentence_transformers import SentenceTransformer, util
     import pandas as pd
     model = SentenceTransformer('sentence-transformers/all-MiniLM-L6-v2')
[]: def get_similarity(text1, text2):
         embeddings = model.encode([text1, text2], convert_to_tensor=True)
         similarity = util.pytorch_cos_sim(embeddings[0], embeddings[1])
         return similarity.item()
[]: relevant = 0
     not relevant = 0
[]: for x in range(100):
         r = query_engine.query(ds["test"][x]["question"])
         a = ds["test"][x]["answer"]
         print(f"Answer: {a}")
         print(f"Response: {r}")
         similarity_score = get_similarity(str(r), a)
         print(f"Similarity Score: {similarity_score}")
         threshold = 0.6
         if similarity_score >= threshold:
            relevant += 1
         else:
            not_relevant += 1
```

Answer: Coding sequence mutations in RET, GDNF, EDNRB, EDN3, and SOX10 are involved in the development of Hirschsprung disease. The majority of these genes was shown to be related to Mendelian syndromic forms of Hirschsprung's disease, whereas the non-Mendelian inheritance of sporadic non-syndromic Hirschsprung disease proved to be complex; involvement of multiple loci was demonstrated in a multiplicative model.

Response:

The context information provided suggests that Hirschsprung disease is a multifactorial disorder. The study mentioned in the context information discusses the identification of genes and loci involved in Hirschsprung's disease, and it is mentioned that the non-Mendelian inheritance of sporadic non-syndromic Hirschsprung's disease proved to be complex, and involvement of multiple loci was demonstrated in a multiplicative model. Therefore,

Hirschsprung disease is not solely a mendelian disorder.

Similarity Score: 0.833781361579895

Answer: The 7 known EGFR ligands are: epidermal growth factor (EGF), betacellulin (BTC), epiregulin (EPR), heparin-binding EGF (HB-EGF), transforming growth factor- [TGF-], amphiregulin (AREG) and epigen (EPG). Response:

The context information provided does not mention any signaling molecules (ligands) that interact with the receptor EGFR. The information provided is related to the development of a pharmacophore model for EGFR tyrosine kinase inhibitors, the identification of potential leads for EGFR TK inhibition, and the mechanism of centromere positioning during early mitosis.

Similarity Score: 0.5908244848251343

Answer: Yes, papilin is a secreted protein

Response:

The given text material does not provide information about whether the protein Papilin is secreted or not.

Similarity Score: 0.7968686819076538

Answer: Long non coding RNAs appear to be spliced through the same pathway as the mRNAs

Response:

The given text does not provide any information about whether long non coding RNAs are spliced or not. The text only describes the current understanding of long non-coding RNA-mediated regulation of cellular processes.

Similarity Score: 0.8217278718948364

Answer: Receptor activator of nuclear factor B ligand (RANKL) is a cytokine predominantly secreted by osteoblasts.

Response:

The context information provided does not mention RANKL or its secretion from cells.

Query: What is the function of DKK1 in multiple myeloma and how does it affect osteoblasts?

Answer:

According to the context information provided, DKK1 is a secreted factor that is produced by myeloma cells in patients with multiple myeloma. DKK1 is an

inhibitor of osteoblast differentiation, and its overexpression by myeloma cells is associated with the presence of lytic bone lesions in patients with multiple myeloma. Immunohistochemical analysis showed that only myeloma cells contained detectable DKK1, and elevated DKK1 levels in bone marrow plasma and peripheral blood from patients with multiple myeloma correlated with the gene-expression patterns of DKK1. Recombinant human DKK1 or bone marrow serum containing an elevated level of DKK1 inhibited the differentiation of osteoblast precursor cells in vitro.

Similarity Score: 0.5587756633758545

Answer: No. There are not reported data indicating that metformin reduce with thyroxine absorption.

Response:

No, the given context information does not suggest that metformin interferes with thyroxine absorption. The study mentioned in the context information is about the use of liraglutide as an add-on to metformin for the treatment of type 2 diabetes. The study did not mention any interference of metformin with thyroxine absorption.

Similarity Score: 0.8155429363250732

Answer: miR-200a, miR-100, miR-141, miR-200b, miR-200c, miR-203, miR-510, miR-509-5p, miR-132, miR-26a, let-7b, miR-145, miR-182, miR-152, miR-148a, let-7a, let-7i, miR-21, miR-92 and miR-93 could be used as potential biomarkers for epithelial ovarian cancer.

Response:

The context information provided does not directly answer the query. However, the article discusses the potential role of miRNAs in regulating kallikrein-related peptidases (KLKs) in ovarian cancer. Specifically, the article identifies three miRNAs (let-7f, miR-224, and miR-516a) that can target KLK10 and decrease its protein expression and cellular growth. While the article does not explicitly state that these miRNAs could be used as potential biomarkers for epithelial ovarian cancer, it suggests that further studies are required to explore this possibility.

Similarity Score: 0.760230302810669

Answer: Pyridostigmine and neostygmine are acetylcholinesterase inhibitors that are used as first-line therapy for symptomatic treatment of myasthenia gravis. Pyridostigmine is the most widely used acetylcholinesterase inhibitor. Extended release pyridotsygmine and novel acetylcholinesterase inhibitors inhibitors with oral antisense oligonucleotides are being studied.

Response:

Pyridostigmine is the most commonly used acetylcholinesterase inhibitor for treatment of myasthenia gravis.

Similarity Score: 0.9361962080001831

Answer: Yes, Denosumab was approved by the FDA in 2010.

Response:

Yes, Denosumab (Prolia) was approved by the FDA in 2010 for the treatment of

osteoporosis in postmenopausal women at high risk for fracture, and in 2011 for the treatment of giant cell tumor of bone that is unresectable or where surgical resection is likely to result in severe morbidity.

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Yes, Denosumab (Prolia) was approved by the FDA in 2010 for the treatment of osteoporosis in postmenopausal women at high risk for fracture, and in 2011 for the treatment of giant cell tumor of bone that is unresectable or where surgical resection is likely to result in severe morbidity.

The context information provided is not related to the query. The query is not mentioned in the given text.

Similarity Score: 0.6920208930969238

Answer: DVL-1

DVL-2

DVL-3

Response:

The given context information is about a study on the dishevelled gene in Drosophila. Therefore, the query is not relevant to the given context.

The dishevelled gene in Drosophila is being discussed in the given context. The human genes encoding for the dishevelled proteins are DVL1, DVL2, and DVL3. Similarity Score: 0.4111728370189667

Answer: Acrokeratosis paraneoplastic (Bazex syndrome) is a rare, but distinctive paraneoplastic dermatosis characterized by erythematosquamous lesions located at the acral sites and is most commonly associated with carcinomas of the upper aerodigestive tract.

Response:

Bazex syndrome is a synonym for Acrokeratosis paraneoplastica.

Similarity Score: 0.861603856086731

Answer: Antiarrhythmic drugs can be divided into four Vaughan Williams classes (I-IV). Class I antiarrhythmic agents have as a common action, blockade of the sodium channels. Class II agents are antisympathetic drugs, particularly the beta-adrenoceptor blockers. Class-III antiarrhythmics have as a common action the potassium-channel blockade. Class IV antiarrhythmic drugs are calcium channel blockers.

Response:

According to Vaughan-Williams classification, the classes of anti-arrhythmic drugs are:

- 1. Class I (Sodium channel blockers)
- 2. Class II (Beta-adrenergic antagonists)
- 3. Class III (Potassium channel blockers)
- 4. Class IV (Calcium channel blockers)

Note: The classification is still under debate for classes I and III.

Similarity Score: 0.8694865703582764

Answer: Notch signaling is an evolutionarily conserved mechanism, used to regulate cell fate decisions. Four Notch receptors have been identified in man:

Notch-1, Notch-2, Notch-3 and Notch-4.

Response:

The context information provided mentions that four Notch receptors have been identified in man (Notch-1 to -4). Therefore, the different isoforms of the mammalian Notch receptor are Notch-1, Notch-2, Notch-3, and Notch-4.

Similarity Score: 0.8322832584381104

Answer: The defining characteristics of cellular senescence are altered morphology, arrested cell-cycle progression, development of aberrant gene expression with proinflammatory behavior, and telomere shortening. Response:

Cellular senescence is a program activated by normal cells in response to various types of stress. These include telomere uncapping, DNA damage, oxidative stress, oncogene activity and others. Senescence can occur following a period of cellular proliferation or in a rapid manner in response to acute stress. Once cells have entered senescence, they cease to divide and undergo a series of dramatic morphologic and metabolic changes. The major characteristics of cellular senescence include the cessation of cell division, dramatic morphologic and metabolic changes, and the activation of signaling pathways leading to the entry of a population of cells into senescence.

Similarity Score: 0.8047899603843689

Answer: Orteronel was developed for treatment of castration-resistant prostate cancer.

Response:

Orteronel is currently in Phase-III clinical development for metastatic castration-resistant prostate patients. Therefore, Orteronel was developed for treatment of prostate cancer.

Similarity Score: 0.9510679244995117

Answer: Although is still controversial, Trastuzumab (Herceptin) can be of potential use in the treatment of prostate cancer overexpressing HER2, either alone or in combination with other drugs.

Response:

Based on the results presented in the given text, it can be concluded that Trastuzumab (Herceptin) as a single agent demonstrated little efficacy in treating hormone-refractory prostate cancer (HRPC). Therefore, it is not of potential use in the treatment of prostate cancer in this context.

Similarity Score: 0.8357994556427002

Answer: The Yamanaka factors are the OCT4, SOX2, MYC, and KLF4 transcription factors

Response:

The context information provided does not mention anything about Yamanaka

factors.

Query: What is the duration of action of midazolam, lorazepam, and diazepam? Answer:

According to the context information provided, the duration of action of midazolam, lorazepam, and diazepam is strongly dependent on the duration of their administration. Based on clinical studies and computer simulations, midazolam has the shortest recovery profile followed by lorazepam and diazepam. Similarity Score: 0.38891419768333435

Answer: The chromosome-centric human proteome project aims to systematically map all human proteins, chromosome by chromosome, in a gene-centric manner through dedicated efforts from national and international teams
Response:

The aim of the Human Chromosome-centric Proteome Project (C-HPP) is to foster the development of proteome analysis and integration of findings from related molecular-omics technology platforms through collaborations among universities, industries, and private research groups. The C-HPP guidelines set out collaborative consensus of the C-HPP teams, introduce topics associated with experimental approaches, data production, quality control, treatment, and transparency of data, governance of the consortium, and collaborative benefits. Similarity Score: 0.7693970203399658

Answer: The protein Pannexin1 is localized to the plasma membranes. Response:

Pannexin1 (Panx1) is found in skin and connective tissue, and it is fairly ubiquitous. In the Central Nervous System (CNS), both Panx1 and Panx2 are present, but they localize at different subcellular compartments in both astrocytes and neurons. In the CNS, Panx1 is partially N-glycosylated and localizes at specific vesicle compartments, which are early endosomal in origin. In electron tomographic volumes, cross-sections of these vesicles display fine structural details and close proximity to actin filaments.

Similarity Score: 0.7477735280990601

Answer: Mutations in the POLG gene have emerged as one of the most common causes of inherited mitochondrial disease in children and adults. They are responsible for a heterogeneous group of at least 6 major phenotypes of neurodegenerative disease that include: 1) childhood Myocerebrohepatopathy Spectrum disorders (MCHS), 2) Alpers syndrome, 3) Ataxia Neuropathy Spectrum (ANS) disorders, 4) Myoclonus Epilepsy Myopathy Sensory Ataxia (MEMSA), 5) autosomal recessive Progressive External Ophthalmoplegia (arPEO), and 6) autosomal dominant Progressive External Ophthalmoplegia (adPEO). Response:

Mitochondrial diseases such as Alpers syndrome, progressive external ophthalmoplegia, and ataxia-neuropathy syndromes have been attributed to POLG mutations.

Similarity Score: 0.8522360324859619

Answer: Ivabradine decreases heart rate and reduces myocardial oxygen demand, increases diastolic perfusion time and improves energetics in ischemic myocardium. Ivabradine protects the myocardium during ischemia, improves left ventricular function in heart failure and reduces remodeling following myocardial infarction. It improves prognosis in patients with coronary artery disease, left ventricular dysfunction and heart rate 70 beats per minute, as well as in patients with heart failure and left ventricular dysfunction. The beneficial effects of ivabradine may be due to the reversal of electrophysiological cardiac remodelling in post-MI rats by reduction of functional overexpression of HCN channels. Furthermore, the improvement of cardiac function is related not only to the HR reduction per se but also to modifications in the extracellular matrix. Response:

In the context provided, ivabradine improves left ventricular function and increases stroke volume in rats with heart failure after myocardial infarction, preserving cardiac output despite the heart rate reduction. The improvement of cardiac function is related not only to the heart rate reduction per se but also to modifications in the extracellular matrix and/or function of myocytes as a consequence of long-term heart rate reduction.

Similarity Score: 0.8523572683334351

Answer: Wilson's disease (WD) is an autosomal recessive disorder.

Response:

The given text material does not provide information about the mode of inheritance of Wilson's disease. The text material is discussing a different topic, which is the segregation ratio by multiple incomplete selection for a gene that is not specified.

Similarity Score: 0.6933658719062805

Answer: Yes. There is strong evidence that splicing and transcription are intimately coupled in metazoans, with genome wide surveys show that most splicing occurs during transcription. Chromatin structure, RNA polymerase dynamics, and recruitment of splicing factors through the transcriptional machinery are factors that explain a role for transcription in the regulation of splicing.

Response:

Yes, according to the given context information, transcription and splicing are connected. The article "We show that in the human genome, splicing occurs predominantly during transcription" suggests that splicing is happening while the RNA is being transcribed. This is further supported by the introduction of the coSI measure, which assesses the degree of splicing completion around internal exons in chromatin-associated RNA, which includes the RNA that is being transcribed. The article also mentions that most RNAs undergo splicing while being transcribed, which is referred to as "co-transcriptional splicing." Similarity Score: 0.8029205799102783

Answer: Facioscapulohumeral muscular dystrophy has an autosomal dominant inheritance pattern.

Response:

Facioscapulohumeral muscular dystrophy (FSHD) has autosomal dominant inheritance.

Query: What is the purpose of the study mentioned in the given text material? Answer:

The purpose of the study mentioned in the given text material is to assess the rate of strength deterioration, functional condition, and performance of activity of daily living of patients with Facioscapulohumeral muscular dystrophy (FSHD) in Taiwan.

Query: What is calciphylaxis and what is the cause of this syndrome? Answer:

Calciphylaxis is a syndrome of calcium deposition in the small and intermediate dermal vasculature which can lead to epidermal ischaemia, ulceration, and necrosis. Most cases occur in those with chronic renal failure and secondary hyperparathyroidism.

Query: What is Riedel's invasive fibrous thyroiditis and what is the treatment for this disorder?

Answer:

Riedel's invasive fibrous thyroiditis is a rare disorder of unknown origin with progressive

Similarity Score: 0.5420621633529663

Answer: Yes, Alu elements were found to be hypomethylated in breast cancer, especially in the HER2-enriched subtype. Furthermore, Alu hypomethylation was identified as a late event during breast cancer progression, and in invasive breast cancer, tended to be associated with negative estrogen receptor status and poor disease-free survival of the patients.

Response:

The given context information does not provide any direct evidence or information regarding Alu hypomethylation and breast cancer. The context information is related to the identification of active Alu sources and their potential contribution to somatic genetic damage. Therefore, the answer is no, there is no direct evidence or information regarding Alu hypomethylation and breast cancer in the given context information.

Similarity Score: 0.825687825679779

Answer: Junctin is a major transmembrane protein in cardiac junctional sarcoplasmic reticulum, which forms a quaternary complex with the ryanodine receptor (Ca(2+) release channel), triadin, and calsequestrin. Response:

The ryanodine receptor (RyR) is a homotetrameric Ca2+ release channel.

Therefore, the formation of the quaternary macromolecular complex involves four RyR subunits.

Similarity Score: 0.5764302015304565

Answer: Hydrophilic Interaction Chromatography (HILIC)

Response:

HILIC (Hydrophilic Interaction Chromatography) is a type of chromatography that is mentioned in the context information.

Similarity Score: 0.8616584539413452

Answer: TRH improves myocardial contractility

Response:

The given context information does not provide any information about the effect of TRH on myocardial contractility. The text discusses the effects of thyroid hormone (T4) on left ventricular hypertrophy induced by pressure overload. Similarity Score: 0.7295726537704468

Answer: Yes, the complete genome sequence of Arthrobacter (two strains) is deposited in GenBank.

Response:

The given context information does not provide any information about the bacteria of the genus Arthrobacter or their complete genome. Therefore, it is not possible to answer the query based on the given context information. Similarity Score: 0.6935551166534424

Answer: The structure fold of the bromodomains is an all-alpha-helical fold, which includes a left-handed four-helix bundle topology, with two short additional helices in a long connecting loop.

Response:

The structural fold of bromodomain proteins is a left-handed four-helix bundle topology, with two short additional helices in a long connecting loop. This information is provided in the context information, specifically in the sentence "The solution structure of the bromodomain from the human transcriptional coactivator GCN5 has been determined using NMR methods. The structure has a left-handed four-helix bundle topology, with two short additional helices in a long connecting loop."

Similarity Score: 0.8188906311988831

Answer: Endoscopic examinations in autistic children have been reported to show : I or II reflux esophagitis, Achalasia, chronic gastritis and chronic duodenitis, mild acute and chronic inflammation of the small bowel and colorectum and Ileo-colonic lymphoid nodular hyperplasia (LNH).

The number of Paneth's cells in the duodenal crypts was found to be significantly elevated in autistic children compared with non-autistic control subjects. Low intestinal carbohydrate digestive enzyme activity was reported although there was no abnormality found in pancreatic function. Autistic children have ben reported to have an increased pancreatico-biliary fluid output after intravenous secretin administration.

Response:

The given context information is about a study that estimates the prevalence of chronic gastrointestinal symptoms in children with autism or autistic spectrum disorder (ASD). The study does not mention any endoscopic diagnoses. Therefore, the answer is that there is no information provided in the given context about endoscopic diagnoses in children with autism.

Similarity Score: 0.646271288394928

Answer: Significant decreases and progressively higher reductions of systolic and diastolic blood pressure were observed after RSD. The complication rate was minimal.

Renal sympathetic denervation also reduces heart rate, which is a surrogate marker of cardiovascular risk.

Response:

The context information provided does not directly relate to Renal sympathetic denervation. The information provided is about sympathetic impairment in carpal tunnel syndrome, catecholaminergic polymorphic ventricular tachycardia, frailty and depressive symptoms in heart failure patients, and angioimmunoblastic T-cell lymphoma. Therefore, there is no information provided about the outcomes of Renal sympathetic denervation.

Similarity Score: 0.5806587934494019

Answer: c-Jun is phosphorylated by c-Jun NH2-terminal kinase (JNK).

Response:

The MAP kinase that phosphorylates the transcription factor c-jun is JNK (c-Jun N-terminal kinase).

Similarity Score: 0.9061105847358704

Answer: TAILS stands for "Terminal Amine Isotopic Labeling of Substrates" Response:

The acronym "TAILS" is not mentioned in the given context information.

Query: What is the purpose of the dimethyl labeling method introduced in the study for protein N-terminal acetylation analysis?

Answer:

The purpose of the dimethyl labeling method introduced in the study for protein N-terminal acetylation analysis is to selectively enrich N()-acetylated tryptic peptides without the need for tedious protective labeling and depleting procedures. This method is utilized for the comprehensive analysis of N-terminal acetylated proteins from HepG2 cells.

Similarity Score: 0.6735941171646118

Answer: Yes, AKT1 mutation occurs in meningiomas.

Response:

The given text material does not provide any information about mutations of AKT1 in meningiomas. The text discusses the use of photodynamic therapy (PDT) as a potential form of adjuvant therapy for incompletely resected meningiomas, and

the activity of PDT against a variety of histological subtypes of meningioma. However, there is no mention of mutations of AKT1 in meningiomas.

Similarity Score: 0.7329208850860596

Answer: Lacosamide is an anti-epileptic drug, licensed for refractory partial-onset seizures. In addition to this, it has demonstrated analgesic activity in various animal models. Apart from this, LCM has demonstrated potent effects in animal models for a variety of CNS disorders like schizophrenia and stress induced anxiety.

Response:

Lacosamide may have the potential to be clinically useful for at least the treatment of generalized tonic-clonic and partial-onset epilepsies, based on the results of the study mentioned in the context information.

Similarity Score: 0.7381524443626404

Answer: Ewing sarcoma is the second most common bone malignancy in children and young adults. In almost 95% of the cases, it is driven by oncogenic fusion protein EWS/FLI1, which acts as an aberrant transcription factor, that upregulates or downregulates target genes, leading to cellular transformation. Response:

The fusion protein involved in the development of Ewing sarcoma is EWSR1-FLI1. Similarity Score: 0.8534760475158691

Answer: Hemolytic uremic syndrome (HUS) is a clinical syndrome characterized by the triad of anaemia, thrombocytopenia, renal failure.

Response:

The Hemolytic Uremic Syndrome (HUS) triad consists of the following:

- 1. Hemolytic anemia
- 2. Thrombocytopenia
- 3. Acute renal failure

Note: This information is provided in the context information.

Similarity Score: 0.9164738655090332

Answer: Yes. Response:

Yes, according to the second article, physical activity (aerobic exercise) can influence gut hormones, specifically peptide YY (PYY) and glucagon-like peptide-1 (GLP-1). The levels of PYY and GLP-1 were increased by exercise, while plasma ghrelin levels were unaffected. However, the article does not provide information on whether this effect is unique to obese individuals or if it applies to normal controls as well.

Similarity Score: 0.03709903731942177

Answer: The knockdown of km23-1 results in numerous effects at the cellular level, such as decreased cell migration. Additionally, km23-1 is involved in signalling pathways and its knockdown results in decreased RhoA activation, inhibition of TGF-mediated activation of ERK and JNK, phosphorylation of c-Jun,

transactivation of the c-Jun promoter and decreased TGFbeta responses. Response:

Depleting protein km23-1 (DYNLRB1) in human colon carcinoma cells inhibited constitutive extracellular signal-regulated kinase (ERK) activation, as well as pro-invasive ERK effector functions that include phosphorylation of Elk-1, constitutive regulation of c-Fos-DNA binding, TGF 1 promoter transactivation, and TGF 1 secretion. In addition, knockdown of km23-1 reduced the paracrine effects of CRC cell-secreted factors in conditioned medium and in fibroblast co-cultures. Moreover, km23-1 depletion in human colon carcinoma cells reduced cell migration and invasion, as well as expression of the ERK-regulated, metastasis-associated scaffold protein Ezrin. Finally, km23-1 inhibition significantly suppressed tumor formation in vivo.

Similarity Score: 0.6777952313423157

Answer: Multicenter Randomized CLinical trial of Endovascular treatment for Acute ischemic stroke in the Netherlands (MR CLEAN) study investigated endovascular treatment for acute ischemic stroke.

Response:

The MR CLEAN study investigated the treatment of acute ischemic stroke.

Query: What is the focus of the article regarding pacritinib and ruxolitinib? Answer:

The article focuses on pacritinib and provides a summary of its development, preclinical and up-to-date results from Phase I - III trials. The article presents the most recent data on efficacy and safety and indirectly compares pacritinib with ruxolitinib.

Similarity Score: 0.6324285864830017

Answer: Nanog, Pou5f1 and SoxB1 activate zygotic gene expression during the maternal-to-zygotic transition. Maternal Nanog, Pou5f1 and SoxB1 are required to initiate the zygotic developmental program and induce clearance of the maternal program by activating miR-430 expression.

Response:

The context information provided does not directly answer the query. The article discusses the identification of novel isoforms and isoform switches during zebrafish zygotic genome activation (ZGA), but it does not specifically address the factors that activate zygotic gene expression during this transition. Similarity Score: 0.4926576614379883

Answer: Yes, irritable bowel syndrome (IBS) is more common in women with endometriosis. It has been shown that 15% of the patients with endometriosis also had IBS. Women with endometriosis are more likely to have received a diagnosis of IBS. Endometriosis may coexist with or be misdiagnosed as IBS. Response:

The study mentioned in the context information evaluated how many patients with endometriosis have concomitant irritable bowel syndrome (IBS) and/or

constipation according to the Rome III criteria. The study found that 15% of the patients with endometriosis also had IBS, but it did not specify whether IBS is more common in women with endometriosis.

Similarity Score: 0.8839000463485718

Answer: The European Organisation for Research and Treatment of Cancer Quality of Life Group information questionnaire (EORTC QLQ-INFO 25) evaluates the level of information patients have received in different areas of their disease, treatment and care, and evaluates qualitative aspects together with satisfaction with information.

Response:

The EORTC QLQ - INFO25 questionnaire is used to measure components of informed decision making.

Similarity Score: 0.630735456943512

Answer: BNP and NTproBNP increase early after exercise in healthy athletes performing different types of sports. It is unknown the reason of this increase. The transient increases in BNP, NT-pro-BNP and troponin T are more likely to reflect myocardial stunning than cardiomyocyte damage.

Response:

Yes, according to the study mentioned in the context information, BNP (NT-proBNP) increases in a major part of obviously healthy athletes after prolonged strenuous exercise. The median increase in NT-proBNP was 200 ng/L in the 100-km runners, which was significantly higher than the increase in the marathon (97 ng/L) or the mountain bike marathon (78 ng/L). However, the study also notes that the release of BNP during and after exercise may not result from myocardial damage but may have cytoprotective and growth-regulating effects.

Similarity Score: 0.8334973454475403

Answer: The association between hormone replacement therapy and meningioma risk is controversial. Increased risk of meningioma was demonstrated in estrogen-only hormonal replacement therapy. However, other studies did not find an association between hormonal replacement therapy and meningioma risk.

Response:

According to the study mentioned in the context information, there is an increased risk of intracranial meningioma in users of estrogen-only hormone therapy (HT). The adjusted relative risk (RR) for women prescribed estrogen-only HT versus not was $1.30 \ (1.11-1.51, p=0.001)$. However, there was no significant difference in risk for estrogen-progestin HT. The totality of the available evidence suggests an increased risk of all CNS tumors (and of glioma and meningioma separately) in users of estrogen-only HT. The absolute excess risk (2 per 10,000 users over 5 years) is small.

Similarity Score: 0.7694672346115112

Answer: Results suggest the potential value of self-management for chronic pain patients and the potential acceptability of web-based delivery of intervention content.

Response:

Yes, according to the context information provided, the study mentioned in the text material involves a noninteractive website that is given to both groups after discharge to promote constructive self-management. However, the specific details of the website and its content are not mentioned in the given text. Similarity Score: 0.4220128655433655

Answer: Overgrowth conditions are a heterogeneous group of disorders characterised by increased growth and variable features, including macrocephaly, distinctive facial appearance and various degrees of learning difficulties and intellectual disability. Among them, Sotos and Weaver syndromes are clinically well defined and due to heterozygous mutations in NSD1 and EZH2, respectively. NSD1 and EZH2 are both histone-modifying enzymes Response:

Weaver syndrome and Sotos syndrome share some similarities in their phenotype, but they are distinct syndromes. The study mentioned in the context information reports that a 2.2-Mb chromosome 5q35 microdeletion, encompassing NSD1, is the major cause of Sotos syndrome, while intragenic mutations and large deletions of NSD1 are also found in some cases of Weaver syndrome. However, the facial gestalt and other features of Weaver syndrome are distinct from those of Sotos syndrome. The study found that intragenic mutations of NSD1 are the major cause of Sotos syndrome and account for some Weaver syndrome cases, but rarely occur in other childhood overgrowth phenotypes.

Similarity Score: 0.7976279258728027

Answer: Evolocumab (AMG145) is a fully human monoclonal antibody to proprotein convertase subtilisin/kexin type 9 (PCSK9) that demonstrated marked reductions in plasma low-density lipoprotein cholesterol concentrations in statinintolerant patients.

Response:

Evolocumab is a monoclonal antibody that inhibits ANGPTL3, not an enzyme.

Query: What is the primary objective of the randomized, placebo-controlled, parallel-group trial mentioned in the text material?

Answer:

The primary objective of the randomized, placebo-controlled, parallel-group trial mentioned in the text material is to assess the safety and tolerability of suvorexant for up to 1 year.

Similarity Score: 0.5627603530883789

Answer: Yes. Especially, a large fraction of non-exonic UCEs is transcribed across all developmental stages examined from only one DNA strand. Response:

Yes, according to the given context information, transcribed ultraconserved region (T-UCR) transcripts are a novel class of long non-coding RNAs (lncRNAs) transcribed from ultraconserved regions (UCRs). UCRs are absolutely conserved (100%) between the orthologous regions of the human, rat, and mouse genomes. The given context information suggests that ultraconserved elements are often

transcribed.

Similarity Score: 0.5891757011413574

Answer: S-adenosyl-L-methionine (AdoMet, SAM) is the methyl donor of DNA (cytosine-5)-methyltransferases. DNA (cytosine-5)-methyltransferases catalyze the transfer of a methyl group from S-adenosyl-L-methionine to the C-5 position of cytosine residues in DNA.

Response:

The methyl donor of DNA (cytosine-5)-methyltransferases is S-adenosyl-L-methionine (AdoMet).

Similarity Score: 0.8769688010215759

Answer: Experimental data support the concept that Ewing sarcoma and peripheral neuroepithelioma are both peripheral primitive neuroectodermal neoplasms, differing only in the extent of neuroectodermal phenotype and morphological differentiation.

Response:

No, peripheral neuroepithelioma is not related to Ewing sarcoma. Peripheral neuroepithelioma is a type of brain tumor that arises from the neuroepithelium, which is a type of tissue that forms the brain and spinal cord during development. Ewing sarcoma, on the other hand, is a type of bone or soft tissue cancer that affects children and young adults. While both tumors are rare, they have different origins and are not related.

Similarity Score: 0.8478360772132874

Answer: Sonidegib is a Hedghog signalling pathway inhibitor.

Response:

Sonidegib inhibits the hedgehog signaling pathway.

Similarity Score: 0.7398945689201355

Answer: In response to damage induced by DNA cross-linking agents, the S-phase checkpoint is inefficient in Fanconi anemia (FA) cells, leading to accumulation of secondary lesions, such as single- and double-strand breaks and gaps. The prolonged time in G2 phase seen in FA cells therefore exists in order to allow the cells to remove lesions which accumulated during the preceding abnormal S phase.

Response:

The cell-cycle delay with 4N DNA content after introduction of interstrand DNA crosslinks (ICL) in Fanconi anemia (FA) cells represents incomplete DNA replication and arrest in late S phase. Therefore, the FA pathway is required for the efficient resolution of ICL-induced S-phase arrest. The study suggests that FA cells do not experience G2/M arrest after ICL treatment, but rather an arrest in late S phase.

Similarity Score: 0.8262485265731812

Answer: R-loops, transcriptionally-induced RNA:DNA hybrids, occurring at repeat tracts (CTG)n, (CAG)n, (CGG)n, (CCG)n and (GAA)n, are associated with diseases including myotonic dystrophy, Huntington's disease, fragile X and Friedreich's ataxia. Physiological R-loop formation at CpG island promoters can contribute

to DNA replication origin specification at these regions, the most efficient replication initiation sites in mammalian cells. R-loops may also possess beneficial effects, as their widespread formation has been detected over CpG island promoters in human genes. R-loops are particularly enriched over G-rich terminator elements.

Response:

The given context information does not provide any information about R-loops or DNA sequences prone to their formation. Therefore, there is no answer to this query based on the given context.

Similarity Score: 0.5869256854057312

Answer: Mutation of aryl hydrocarbon receptor interacting protein (AIP) gene was implicated in the familial isolated pituitary adenoma (FIPA) syndrome. About 20% of the families with FIPA harbor inactivating mutation in AIP gene. Response:

The mutation of the aryl hydrocarbon receptor interacting protein (AIP) gene is implicated in the familial isolated pituitary adenoma.

Similarity Score: 0.949657678604126

Answer: The following mutations of troponin C gene have been found to cause hypertrophic cardiomyopathy: L29Q; A8V; A31S; E134D; c.363dupG; A23Q; D145E and C84Y

Response:

The study mentioned in the context information found novel missense mutations in TNNC1 (human cTnC gene) that have been linked to hypertrophic cardiomyopathy (HCM). These mutations include A8V, C84Y, E134D, and D145E. The study also revealed that mutations occurring in the human cTnC gene have the same prevalence as well-established HCM-susceptibility genes that encode other sarcomeric proteins. The functional studies with these recombinant HcTnC HCM mutations showed increased Ca(2+) sensitivity of force development and force recovery, which are consistent with the HCM functional phenotypes seen with other sarcomeric-HCM mutations.

Similarity Score: 0.6515729427337646

Answer: Ear acupressure (EAP) and ear acupuncture have been used for smoking cessation, and some positive results have been reported.

Auricular (ear) acupressure has been purported to be beneficial in achieving smoking cessation in some studies, while in others has been deemed insignificant.

The combined acupuncture-education group showing the greatest effect from treatment.

Response:

According to the given context information, a randomized, single-blind, placebo-controlled trial was conducted to evaluate the effectiveness of a simple ear electroacupuncture treatment for smoking cessation. The results showed that the active treatment group had a significantly higher rate of total cessation of smoking at six months compared to the placebo group. Therefore, the study

suggests that acupuncture can be an effective aid in smoking cessation. Similarity Score: 0.8492701649665833

Answer: H3K9me3 is the major marker of constitutive heterochromatin. Other histone methylation marks usually found in constitutive heterochromatin, are H4K20me3 and H3K79me3. Classical histone modifications associated with heterochromatin include H3K9me2, H3K27me1 and H3K27me2. Histone H3 trimethylation at lysine 36 is associated with constitutive and facultative heterochromatin. H3S10 phosphorylation marks constitutive heterochromatin during interphase in early mouse embryos until the 4-cell stage Response:

The context information provided does not specifically mention which post-translational histone modifications are characteristic of constitutive heterochromatin. However, the study mentioned in the context information suggests that hypoacetylation of the N-terminal tails of H4 and hypermethylation of H3 at lysine 9 can play an important role in determining whether a chromatin sequence in mammalian cells is constitutively heterochromatic. Therefore, it can be inferred that these modifications are characteristic of constitutive heterochromatin.

Similarity Score: 0.7523038983345032

Answer: GV1001 is a 16-amino-acid vaccine peptide derived from the human telomerase reverse transcriptase sequence. It has been developed as a vaccine against various cancers.

Response:

The text material provided does not mention any vaccine targeting an enzyme named GV1001. The text material is discussing the development of a vaccine against Rift Valley fever virus (RVFV) using a fluorescence microsphere immunoassay (FMIA) to detect antibodies against RVFV glycoprotein (Gn) and nucleocapsid protein (Np). The FMIA was performed in parallel with virus neutralization tests, and the results revealed that the Np and Gn targets could differentiate infected animals from animals vaccinated with a candidate subunit vaccine formulation based on the RVFV Gn and Gc proteins. Therefore, the vaccine targets the RVFV Gn and Np proteins, not an enzyme named GV1001.

Similarity Score: 0.6681482791900635

Answer: IB degradation involves ubiquitination mediated by a specific E3 ubiquitin ligase SCF(-TrCP). SCF(-TrCP) -mediated IB ubiquitination and degradation is a very efficient process, often resulting in complete degradation of the key inhibitor IB within a few minutes of cell stimulation. Response:

The E3 ubiquitin ligase which ubiquitinates IkB leading to its proteasomal degradation is E3RS(IkB/beta-TrCP).

Similarity Score: 0.7442566156387329

Answer: HGF-induced activation of c-Met is playing a pivotal role in the stimulation of c-Src activation, resulting in induction of phosphatidylinositol 3-kinase complexes p85/p110 and p85/p110, which is required for Akt-mediated activation of mammalian target of rapamycin, with consequent inhibition of IB

kinase and nuclear factor-B activation, resulting in enhanced cell survival. Response:

Yes, according to the text, inhibition of c-Met activity led to suppression of the PI3K-Akt pathway, thus enhancing cisplatin chemosensitivity. Therefore, c-Met is involved in the activation of the Akt pathway.

Similarity Score: 0.6023961901664734

Answer: Pregnant women are at increased risk for complications from pandemic influenza H1N1 virus infection. Pregnant women, because of their altered immunity and physiological adaptations, are at higher risk of developing pulmonary complications, especially in the second and third trimesters. Pregnancy, particularly during the third trimester, increases the risk of complications and early antiviral treatment is associated with improved outcomes.

Response:

The study mentioned in the context information did not investigate the relationship between pregnancy and H1N1 infection. The study focused on the association between exposure to an adjuvanted pandemic A/H1N1 2009 influenza vaccine during pregnancy and the risk of fetal death. The study found no evidence of an increased risk of fetal death associated with exposure to the vaccine during pregnancy.

Similarity Score: 0.7646490335464478

Answer: No. Most long non coding RNAs (lncRNAs) are under lower sequence constraints than protein-coding genes.

Response:

The study mentioned in the context information suggests that only a small portion of human long non-coding RNAs (lncRNAs) appear to be conserved outside of mammals. The study estimates that up to 5% of conserved mammalian lncRNAs are derived from lost protein-coding genes. However, the study also notes that lncRNAs have specific characteristics, such as broader expression domains, that set them apart from other lncRNAs. Therefore, while some lncRNAs may be conserved in sequence, the majority may not be as conserved as protein coding genes.

Similarity Score: 0.717546284198761

Answer: Brain-lung-thyroid syndrome (BLTS) characterized by congenital hypothyroidism, respiratory distress syndrome, and benign hereditary chorea is caused by thyroid transcription factor 1 (NKX2-1/TTF1) mutations. Response:

The mutation of thyroid transcription factor 1 (NKX2-1/TTF1) is implicated in the Brain-lung-thyroid syndrome.

Similarity Score: 0.6330788135528564

Answer: Clathrin helps build small vesicles in order to safely transport molecules within and between cells.

Response:

Clathrin is a protein that assembles into triskelia composed of three clathrin heavy chains and associated clathrin light chains (CLCs). It is a major entry portal where assembled clathrin forms a lattice around invaginating buds that have captured endocytic cargo. In this work, the authors identify a novel role for CLCs in the regulated endocytosis of specific cargoes. Small interfering RNA-mediated knockdown of either CLCa or CLCb inhibits the uptake of GPCRs. Moreover, they demonstrate that phosphorylation of Ser204 in CLCb is required for efficient endocytosis of a subset of GPCRs and identify G protein-coupled receptor kinase 2 (GRK2) as a kinase that can phosphorylate CLCb on Ser204. Overexpression of CLCb(S204A) specifically inhibits the endocytosis of those GPCRs whose endocytosis is GRK2-dependent. Together, these results indicate that CLCb phosphorylation acts as a discriminator for the end

Similarity Score: 0.6078278422355652

Answer: Suppression of protein kinase A regulatory subunit 1 alpha (PRKAR1A) has been proven to inhibit cholangiocarcinoma (CCA) cell growth and enhance apoptosis. Also, Knockdown of the cAMP-dependent protein kinase (PKA) Type Ialpha regulatory subunit in mouse oocytes disrupts meiotic arrest and results in meiotic spindle defects.

Response:

The main results of PRKAR1A Knockdown are:

- 1. PRKAR1A knockdown significantly decreased the proliferation of HCT116 cells.
- 2. PRKAR1A knockdown significantly increased the apoptosis of HCT116 cells.
- 3. PRKAR1A knockdown significantly decreased the migration and invasion of HCT116 cells.
- 4. PRKAR1A knockdown significantly decreased the expression of MMP2 and MMP9.
- 5. PRKAR1A knockdown significantly decreased the phosphorylation of ERK1/2 and AKT.
- 6. PRKAR1A knockdown significantly decreased the expression of cyclin D1 and $\mathtt{CDK4}$.
- 7. PRKAR1A knockdown significantly decreased the expression of Bcl-2 and increased the expression of Bax.
- 8. PRKAR1A knockdown significantly decreased the expression of survivin.
- 9. PRKAR1A knockdown significantly decreased the expression of VEGF.
- 10. PRKAR1A knockdown significantly decreased the expression of HIF-Similarity Score: 0.5030642151832581

Answer: Transcutaneous electrical nerve stimulation is widely used in pain management

Response:

The given context information is not related to the query. The article is about a smartphone-delivered intervention with written diaries and therapist feedback for women with chronic widespread pain. The article does not mention TENS machine or its effectiveness in pain.

Similarity Score: 0.4531858563423157

Answer: yes Response:

Yes, the paper "DEEP: A Novel Ensemble Prediction Framework for Identifying Enhancers from Chromatin State" by Al-Shahrani et al. (2016) presents a novel ensemble prediction framework called DEEP for identifying enhancers from chromatin state. The framework integrates three components with diverse characteristics to streamline the analysis of enhancer's properties in a great variety of cellular conditions. The method trains many individual classification models that are combined to classify DNA regions as enhancers or non-enhancers. DEEP uses features derived from histone modification marks or attributes coming from sequence characteristics. The paper reports that DEEP performs better than four state-of-the-art methods on the ENCODE data and achieves 90.2% accuracy and 90% geometric mean (GM) of specificity and sensitivity across 36 different tissues

when tested on FANTOM5 data.

Similarity Score: 0.0480208694934845

Answer: Imetelstat sodium (GRN163L), is a 13-mer oligonucleotide N3' \rightarrow P5' thiophosphoramidate lipid conjugate, which represents the latest generation of telomerase inhibitors targeting the template region of the human functional telomerase RNA subunit. In preclinical trials, this compound has been found to inhibit telomerase activity in multiple cancer cell lines, as well as in vivo xenograft mouse models.

Response:

The drug Imetelstat targets telomerase, a telomere maintenance enzyme. Similarity Score: 0.7761408090591431

Answer: Dupilumab, a fully human monoclonal antibody that blocks interleukin-4 and interleukin-13, has shown efficacy in patients with asthma and elevated eosinophil levels.

Response:

Dupilumab is a fully human monoclonal antibody that targets the IL-4 receptor . The study mentioned in the context information shows that dupilumab modulates the AD molecular signature by inhibiting TH2-associated chemokines (CCL17, CCL18, CCL22, and CCL26) without significant modulation of TH1-associated genes (IFNG). Therefore, dupilumab inhibits IL-4 and IL-13, which are both interleukins that are part of the TH2-centered inflammatory axis in patients with AD.

Similarity Score: 0.7529648542404175

Answer: The genes that are most commonly linked to craniosynostoses are the members of the Fibroblast Growth Factor Receptor family FGFR3 and to a lesser extent FGFR1 and FGFR2. Some variants of the disease have been associated with the triplication of the MSX2 gene and mutations in NELL-1. NELL-1 is being regulated bu RUNX2, which has also been associated to cases of craniosynostosis. Other genes reported to have a role in the development of the disease are RECQL4, TWIST, SOX6 and GNAS.

Response:

The article "A Genetic Testing Protocol for Nonsyndromic Craniosynostosis"

suggests that recent genetic studies have identified several novel genes and pathways that cause nonsyndromic craniosynostosis. The authors provide recommendations for a new genetic testing protocol for children with nonsyndromic craniosynostosis, which include testing nonsyndromic cases of sagittal, metopic, and coronal craniosynostosis. Therefore, it can be inferred that nonsyndromic craniosynostosis is genetically heterogeneous and that there are more commonly related human genes to craniosynostosis in nonsyndromic cases. Similarity Score: 0.5352095365524292

Answer: Yes, it appears that there is widespread T-UCR (Transcribed - UltraConserved Region) involvement in diverse cellular processes that are deregulated in the process of tumourigenesis. Transcribed ultraconserved regions (T-UCRs) are a subset of 481 sequences longer than 200 bp, which are absolutely conserved between orthologous regions of human, rat and mouse genomes, and are actively transcribed. It has recently been proven in cancer systems that differentially expressed T-UCRs could alter the functional characteristics of malignant cells.

Response:

Yes, according to the given context information, transcribed ultraconserved regions (T-UCRs) are altered at the transcriptional level in human tumorigenesis and the aberrant T-UCRs expression profiles can be used to differentiate human cancer types.

Similarity Score: 0.8446923494338989

Answer: Palbociclib is useful for women with hormone receptor-positive, human epidermal growth factor receptor 2-negative breast cancer.

Response:

Palbociclib (PD0332991) is a highly selective oral CDK 4/6 inhibitor that is being explored in combination with endocrine therapy in Phase III studies for hormone receptor-positive (HR+) breast cancer patients. Results so far have indicated promising efficacy and manageable safety profiles, and led to the FDA approval of palbociclib. Phase II-III studies of these agents, in combination with endocrine therapy, are also underway in early breast cancer in the neoadjuvant and adjuvant settings.

Similarity Score: 0.8268441557884216

Answer: Congenital deafness is one of the characteristics of Pendred syndrome patients.

Response:

Yes, patients with Pendred syndrome present congenital deafness. The article mentions that Pendred syndrome is a common malformation of the inner ear, specifically enlargement of the vestibular aqueduct, which is commonly seen in deaf patients. The article also states that 72% of the patients referred with radiological evidence of vestibular aqueduct enlargement had unequivocal evidence of Pendred syndrome.

Similarity Score: 0.8379270434379578

Answer: SGLT2 inhibitors can be associated with urogenital infections related to the enhanced glycosuria, and low blood pressure.

Response:

The main adverse effects of SGLT2 inhibitors are increased risk for urinary and genital tract infections.

Similarity Score: 0.8038760423660278

Answer: Excellent prognosis in a subset of patients with Ewing sarcoma identified at diagnosis by CD56 using flow cytometryIn patients with localized nonpelvic disease, those expressing low/negative CD56 had 100% PFS versus 40% in the high expressing group (P = 0.02)

Response:

The given context information does not provide any information about CD56 and its usefulness in Ewing sarcoma prognosis. The context information is related to a study on a new anti-IL-6 monoclonal antibody for the treatment of Castleman's disease

Similarity Score: 0.7009556293487549

Answer: Filter Aided Sample Preparation (FASP), a type of proteomic reactor, in which samples dissolved in sodium dodecyl sulfate (SDS) are digested in an ultrafiltration unit.

Response:

The method FASP is used for processing proteins in the second step of the protocol for large scale quantitative analysis of formalin fixed and paraffin embedded (FFPE) tissue. In this step, proteins are depleted from reagents used for the sample lysis and are digested in two-steps using endoproteinase LysC and trypsin. After each digestion, the peptides are collected in separate fractions and their content is determined using a highly sensitive fluorescence measurement.

Similarity Score: 0.5360116958618164

Answer: Reduced dosage of ERF, which encodes an inhibitory ETS transcription factor directly bound by ERK1/2 causes complex craniosynostosis (premature fusion of the cranial sutures) in humans and mice. Features of this newly recognized clinical disorder include multiple-suture synostosis, craniofacial dysmorphism, Chiari malformation and language delay.

Response:

The context information provided does not directly address the query. The given text is about a 6-month-old female with multiple sutural synostosis and prenatal onset growth deficiency, developmental delay, facial dysmorphism, congenital heart defect, and inguinal hernia. The study reports a complex chromosome 5 rearrangement resulting in 3 paracentric inversions, 2 between-arm insertions, and partial duplication of 5q35. The extra copy of the MSX2 gene, which maps within the duplicated segment and is mutated in Boston-type craniosynostosis, was confirmed by molecular cytogenetic studies. The study confirms that early fusion of cranial sutures commonly observed in the dup(5q) syndrome is caused by triplication of the MSX2 gene and strongly supports the crucial role of this gene in the development of craniofacial structures.

There is no mention of the role of extracellular signal-related kinases 1 and 2 (ERK1/2) proteins in craniosynostosis in the given text.

Similarity Score: 0.5861923694610596

Answer: Chronic kidney disease (CKD), is a progressive loss in renal function over a period of months or years. The symptoms of worsening kidney function are non-specific, and might include feeling generally unwell and experiencing a reduced appetite. Often, chronic kidney disease is diagnosed as a result of screening of people known to be at risk of kidney problems, such as those with high blood pressure or diabetes and those with a blood relative with chronic kidney disease. Chronic kidney disease may also be identified when it leads to one of its recognized complications, such as cardiovascular disease, anemia or pericarditis. It is differentiated from acute kidney disease in that the reduction in kidney function must be present for over 3 months. Response:

Yes, the review mentioned in the context information discusses the use of urinary proteomic biomarkers for predicting chronic kidney disease progression. However, the review also notes that independent groups have not yet validated these findings, and the technique is not currently available for routine clinical care.

Similarity Score: 0.5581440925598145

Answer: Accelerometer assessment measuring overall physical activity (PAL), constant strain postures (CSP), standing time (ST) and lying time (LT)... The following parameters of physical activity were recorded: time upright (standing or walking), time standing, time walking, and step count. Response:

The accelerometer is being worn by back pain patients for five weekdays to measure their physical activity levels.

Similarity Score: 0.5440042018890381

Answer: JASPAR, JASPAR CORE, JASPAR FAM, JASPAR phyloFACTS, JASPAR 2008 update, JASPAR 2010, JASPAR 2014.

Response:

The context information provided does not mention anything related to JASPAR database releases. Therefore, there is no answer to this query based on the given context.

Similarity Score: 0.5726269483566284

Answer: The IFAP syndrome is a rare X-linked genetic disorder characterized by the triad of follicular ichthyosis, atrichia, and photophobia. Response:

The IFAP syndrome (ichthyosis, atrichia, and photophobia) is mentioned in the given text. The patient in the text also had pachyonychia, palmoplantar, and periorificial keratoderma, which were reminiscent of Olmsted syndrome. Therefore, the symptoms of IFAP syndrome are ichthyosis, atrichia, photophobia, pachyonychia, palmoplantar keratoderma, and periorificial keratoderma. Similarity Score: 0.8059561252593994

Answer: The prodrug clopidogrel requires activation by cytochrome P-450 (CYP) enzymes for its antiplatelet effect. Variability in clopidogrel response might be influenced by polymorphisms in genes coding for drug metabolism enzymes (cytochrome P450 CYP2C19), transport proteins (P-glycoprotein) and/or target proteins for the drug (adenosine diphosphate-receptor P2Y12). The CYP2C19 loss-of-function alleles had a gene dose effect on the pharmacodynamics and composite ischemic events of clopidogrel in our study population. Neither the ABCB1 nor the PON1 genotype significantly influenced the antiplatelet effect and clinical outcomes of clopidogrel in these patients Response:

The given context information does not provide any information about a gene required for the efficient function of clopidogrel. The study mentioned in the context information investigates the effect of coexisting polymorphisms of CYP2C19 and P2Y12 on clopidogrel responsiveness and adverse clinical events in Chinese patients.

Similarity Score: 0.7860255837440491

Answer: Yes, valproic acid prolong survival of glioblastoma patients. Valproic acid is an antiepileptic agent with histone deacetylase inhibitor activity shown to sensitize glioblastoma cells to radiation in preclinical models. Response:

The study mentioned in the context information suggests that valproic acid (VPA) given either with or without levetiracetam (LEV) can be effective for seizure control in patients with glioblastoma multiforme (GBM) treated with chemoradiation. However, the study did not specifically address whether VPA is effective for glioblastoma treatment. The study's focus was on examining the efficacy of VPA and LEV alone and as polytherapy on seizure control and survival in patients with GBM treated with chemoradiation. The study found that polytherapy with VPA and LEV more strongly contributes to seizure control than does either as monotherapy. Additionally, patients using VPA in combination with temozolomide showed a longer median survival of 69 weeks compared with 61 weeks in the group without VPA, adjusting for age, extent of resection, and O(6)-DNA methylguanine-methyltransferase promoter methylation status.

Similarity Score: 0.7442914843559265

Answer: Transcription factor EB (TFEB) is a master regulator of lysosomal biogenesis and autophagy, driving lysosome adaptation to environmental cues, such as starvation, and therefore targeting of TFEB may provide a novel therapeutic strategy for modulating lysosomal function in human disease. Response:

The transcription factor EB (TFEB) is considered as a master regulator of lysosomal genes.

Similarity Score: 0.8261427283287048

Answer: Under some conditions, both ramoplanin and vancomycin probes produce helicoid staining patterns along the cylindrical walls of B. subtilis cells. This work has implications for the design of ramoplanin derivatives and may influence how other proposed substrate binding antibiotics are studied. This was

confirmed by in vitro studies involving a wall-membrane particulate fraction from Gaffkya homari in which peptidoglycan synthesis from UDP-MurNActetrapeptide was inhibited by ramoplanin but not by vancomycin. New results support a two-state model for septal and peripheral PG synthesis at mid-cell, involvement of essential cell division proteins in PG remodeling, and mid-cell localization of proteins that organize PG biosynthesis and that form the protein translocation apparatus.

D-cycloserine is an antibiotic that targets peptidoglycan biosynthesis. This is evident from the study mentioned in the context information, where the hypersusceptibility of the alrA mutants to D-cycloserine is demonstrated. The MIC of D-cycloserine for the mutant strain was 2.56 microg/ml, 30-fold less than that for the wild-type strain. This effect does not involve a change in the permeability of the cell wall by this drug and is consistent with the identification of D-alanine racemase as a target of D-cycloserine.

Similarity Score: 0.37684714794158936

Answer: Levoxyl monotherapy is associated with increased insomnia compared to a combination of levothyroxine and liothyronine.

Response:

Response:

The context information provided does not directly address the query. However, it mentions that malabsorptive disorders, such as coeliac disease, inflammatory bowel disease, lactose intolerance, Helicobacter pylori infection, and atrophic gastritis, can affect the absorption of levothyroxine. Some commonly used drugs, such as bile acid sequestrants, ferrous sulphate, sucralfate, calcium carbonate, aluminium-containing antacids, phosphate binders, raloxifene, and proton-pump inhibitors, have also been shown to interfere with the absorption of levothyroxine. Insomnia is not directly mentioned as a side effect of levothyroxine or any of the malabsorptive disorders or commonly used drugs mentioned.

Similarity Score: 0.7340537309646606

Answer: Yes, fatigue is a common complication of glioblastoma patients receiving chemotherapy or radiotherapy.

Response:

The context information provided does not directly address the query. However, the article mentioned in the context information is not related to fatigue in patients receiving treatment for glioblastoma. The article discusses a clinical trial investigating the combination of galunisertib and lomustine for glioblastoma treatment, but it does not specifically mention fatigue as a prevalent symptom in these patients.

Similarity Score: 0.7952064871788025

Answer: Tay syndrome is a rare autosomal recessive genetic disorder characterized by congenital ichthyosis and trichothiodystrophy (abnormal brittle hair). Other less common features of this syndrome are photosensitivity, low birth weight, short stature, mental retardation, delayed neuromuscular development and other CNS anomalies, dysplasia of nails, hypoplasia of

subcutaneous fatty tissue, prematurely aged facial appearance, hypogonadism, cataracts, osteosclerosis, dysphonia, and increased susceptibility to infections.

Response:

Tay syndrome, also known as Tay-Sachs disease, is a rare genetic disorder that affects the nervous system. Two common features of Tay syndrome are:

- 1. Progressive loss of motor skills and vision, leading to blindness and paralysis.
- 2. The accumulation of a fatty substance called ganglioside GM2 in nerve cells, which causes damage and death to the cells.

Similarity Score: 0.8256974220275879

Answer: Macrophages, T cells and their respective cytokines play a pivotal role in RA. Rheumatoid arthritis synovial fibroblasts (RASFs) constitute a quite unique cell type that distinguishes RA from other inflammatory conditions of the joints. Activated synovial fibroblasts (SFs) have the ability to invade joint cartilage, actively contributing to joint destruction in RA. Response:

The context information provided does not directly answer the query. The article discusses the role of non-MHC genes in the pathogenesis of rheumatoid arthritis, but it does not specifically mention which cell types are driving the disease. Similarity Score: 0.5730293393135071

Answer: High neuroticism is associated with increased risk to develop Alzheimer's disease. Greater neuroticism is also associated more advanced Alzheimer's disease neuropathology and younger age of dementia onset. Neuroticism's association with late-life dementia mainly reflects vulnerability to stress and anxiety. Neuroticism moderates the relationship between APOE-4 genotype and cognitive outcomes in elderly. Neuroticism also predicts Mild Cognitive Impairment, Aging-Associated Cognitive Decline and cognitive decline among elderly. Alzheimer's disease patients have greater neuroticism relative to controls.

Response:

Higher levels of anxiety and vulnerability to stress, which are components of the neuroticism trait, are associated with increased risk of Alzheimer's disease and more rapid decline in global cognition, according to a longitudinal clinical-pathologic cohort study. The other four trait components were not related to the risk for Alzheimer's disease or decline in specific cognitive systems.

Similarity Score: 0.7613802552223206

Answer: Everolimus is a drug that binds to mTORC1 and inhibits activation of the mTOR signalling pathway. It is used in targeted cancer therapy protocols or after transplantation for maintenance immunosuppression, against allograft rejection.

Response:

Everolimus is an immunosuppressant drug that works by inhibiting the mammalian target of rapamycin (mTOR), a protein that plays a role in cell growth and division. By inhibiting mTOR, everolimus can prevent the activation of T cells and other immune cells, which can help prevent organ rejection in transplant patients. It is commonly used in combination with other immunosuppressants to manage organ transplantation.

Similarity Score: 0.898005485534668

Answer: Yes, mutations in the DNA that affect the splicing pattern of genes have been linked in transcriptome population studies to a number of diseases. Response:

No, the given context information does not provide any information about splicing QTLs and their linkage to disease. The context information is about the comparison of cotranscriptional splicing efficiency in Drosophila and mouse liver, and the role of SUMOylation in facilitating WSSV replication in crayfish. Similarity Score: 0.5901380777359009

Answer: Molecular detection of EWS-FLI1 chimeric transcripts in Ewing family tumors is carried out by reverse transcription-polymerase chain reaction (RT-PCR).

Response:

The technique used for detection of EWS/FLI1 fusion transcripts is one-step RT-PCR, as mentioned in the text.

Similarity Score: 0.572145402431488

Answer: Recent genome-wide studies mapping the binding sites of CTCF and its interacting partner, cohesin, using chromatin immunoprecipitation coupled with deep sequencing (ChIP-seq) revealded that CTCF globally co-localizes with cohesin.

Response:

Yes, according to the given text, CTCF protein co-localizes with cohesin. The text states that "gene expression as regulated by NURF occurs partly through physical and functional interactions with the ubiquitous and multivalent factors Ctcf and cohesin." This suggests that CTCF and cohesin are present and interacting in the same location or structure.

Similarity Score: 0.7357840538024902

Answer: Bimolecular fluorescence complementation (BiFC) is a powerful method for studying protein-protein interactions in different cell types and organisms. This method was recently developed in the fruit fly Drosophila melanogaster, allowing analyzing protein interaction properties in a physiologically relevant developing context.

Response:

The context information provided does not mention the application of the Bimolecular Fluorescence Complementation (BiFC) assay in Drosophila embryos. The information provided is about the identification of new fluorescent protein fragments for BiFC and multicolor BiFC assays in living cells, which can facilitate the study of protein-protein interactions in living cells and whole

animals under physiological conditions.

Similarity Score: 0.8595001697540283

Answer: Hypertrophic cardiomyopathy (HCM) has been recently recognized as the most common inherited cardiovascular disorder, affecting 1 in 500 adults worldwide. HCM is characterized by myocyte hypertrophy resulting in thickening of the ventricular wall, myocyte disarray, interstitial and/or replacement fibrosis, decreased ventricular cavity volume and diastolic dysfunction. HCM is also the most common cause of sudden death in the young particularly among athletes. A large proportion of patients diagnosed with HCM have mutations in sarcomeric proteins. HCM is the most prevalent genetic disorder affecting the heart and is typically inherited in an autosomal dominant pattern. Adults with cardiomyopathy suffer SCD or adverse events such as stroke and heart failure from HCM.

Response:

Hypertrophic cardiomyopathy (HCM) is the pathological condition of the heart that is mentioned in the given context information.

Similarity Score: 0.7654081583023071

Answer: Rubinstein-Taybi syndrome (RTS) is a rare autosomal dominant disorder (prevalence 1:125,000) characterised by broad thumbs and halluces, facial dysmorphism, psychomotor development delay, skeletal defects, abnormalities in the posterior fossa and short stature. The known genetic causes are a microdeletion at 16p13.3 or mutations or deletions of the cAMP-response element binding protein-BP (CREBBP) (50-60% of the cases) and of the homologous gene E1A-binding protein (EP300) at 22q13 (5%). Direct sequencing of CREBBP performed in 13 RSTS patients identified the three zinc fingers (CH1, CH2, CH3) and HAT domain as mutational hotspots. Thus about 55% of patients have cytogenetic or molecular abnormalities in the Crebbp or E1A binding protein p300 (Ep300) gene, leaving the diagnosis in 45% of patients to rest on clinical features only. Response:

The genetic basis of Rubinstein-Taybi syndrome (RSTS) is known to be point mutations or deletions in the CREBBP (50-60%) and EP300 (5%) genes. However, in this study, the researchers used a-CGH to detect chromosomal rearrangements indicating novel positional candidate RSTS genes in 26 patients who were negative at fluorescence in situ hybridisation analyses of the CREBBP and EP300 regions, and direct sequencing analyses of the CREBBP gene. They found seven imbalances (27%), including four de novo and three inherited rearrangements not reported among the copy number variants. A de novo 7p21.1 deletion of 500 kb included the TWIST1 gene, which is a suggested candidate for RSTS that is responsible for the Saethre-Chotzen syndrome, an entity that enters in differential diagnosis with RSTS. However, the contribution of these detected CNVs to the clinical RSTS phenotype is difficult to assess.

Similarity Score: 0.7988452911376953

Answer: The virally encoded fungal toxin $\ensuremath{\mathsf{KP4}}$ specifically blocks L-type voltage-gated calcium channels.

Response:

Context information: The viral KP4 protein is a multifunctional protein that plays a role in the regulation of viral gene expression, viral replication, and viral assembly. It is encoded by the KSHV (Kaposi's sarcoma-associated herpesvirus) genome and is essential for the establishment and maintenance of KSHV infection in vivo. The KP4 protein interacts with various cellular and viral proteins, including the cellular transcription factor NF-B, the viral transcription factor RTA, and the viral replication protein ORF69. It also has a role in the regulation of host cell gene expression and in the modulation of the host cell immune response. The KP4 protein is a potential target for the development of antiviral therapies for KSHV-associated diseases, such as Kaposi's sarcoma and primary effusion lymphoma.

Similarity Score: 0.4306694567203522

```
[]: print(f"Relevant: {relevant}")
print(f"Not Relevant: {not_relevant}")
```

Relevant: 73
Not Relevant: 27

```
[]: accuracy = relevant / (relevant + not_relevant)*100
print(f"Accuracy: {accuracy}")
```

Accuracy: 73.0