

```
C:\Users\syedh\.virtualenvs\pennsieve-rag-uyDMxVgC\Scripts\python.exe C:\Users\syedh\Desktop\Neo4j\pennsieve-rag\app\main.py
Milvus container is already running ✓
Generating embedding for the user query...
Collection established with Milvus collection named 'default'.
[Index] Index already exists on the embedding field in 'default' collection.
```

```
Loading the collection into memory for search...
Searching for similar vectors to user query in the 'default' collection...
Success [Index]: Similar vectors are following:
```

Hit 1:

```
Cypher Path: (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:FILES]->(:File {name: 'test.edf'})-[:DATA]->(:Data {children: 3.0, type: 'Object'})-[:_header]->(:Data {children: 10.0, type: 'Object'})-[:signalInfo]->(:Data {children: 12.0, type: 'Array'})-[:INDEX]->(:Data {children: 10.0, type: 'Object'})-[:physicalMaximum]->(:Data {value: 1000.0})
```

Distance: 0.18219926953315735

Hit 2:

```
Cypher Path: (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:FILES]->(:File {name: 'test.edf'})-[:DATA]->(:Data {children: 3.0, type: 'Object'})-[:_physicalSignals]->(:Data {children: 12.0, type: 'Array'})-[:INDEX]->(:Data {children: 600.0, type: 'Array'})-[:INDEX]->(:Data {children: 200.0, type: 'Object'})-[:`3`]->(:Data {value: -99.96185302734375})
```

Distance: 0.1712508499622345

Hit 3:

```
Cypher Path: (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:FILES]->(:File {name: 'test.edf'})-[:DATA]->(:Data {children: 3.0, type: 'Object'})-[:_rawSignals]->(:Data {children: 12.0, type: 'Array'})-[:INDEX]->(:Data {children: 600.0, type: 'Array'})-[:INDEX]->(:Data {children: 200.0, type: 'Object'})-[:`1`]->(:Data {value: -1668.0})
```

Distance: 0.16933807730674744

Collection released from memory.

****Time taken to conduct vector similarity search in vector DB: 2.97 seconds

> Entering new GraphCypherQAChain chain...

Generated Cypher:

```
MATCH (:Pennsieve)-[:DATASET]->()-[:FILES]->()-[:DATA]->()-[:contributors]->()-[:INDEX]->(contributor)-[:degree]->(degree)
RETURN contributor, degree.value AS degree
```

Full Context:

```
[{'contributor': {'children': 5.0, 'type': 'Object'}, 'degree': 'Ph.D.'}, {'contributor': {'children': 4.0, 'type': 'Object'}, 'degree': 'Ph.D.'}, {'contributor': {'children': 5.0, 'type': 'Object'}, 'degree': 'Ph.D.'}, {'contributor': {'children': 4.0, 'type': 'Object'}, 'degree': 'Ph.D.'}, {'contributor': {'children': 5.0, 'type': 'Object'}, 'degree': 'Ph.D.'}, {'contributor': {'children': 5.0, 'type': 'Object'}, 'degree': 'Ph.D.'}, {'contributor': {}, 'degree': None}]
```

> Finished chain.

```
{
```

```
  "query": "What is the degree (i.e. bachelors/masters/phd) of the contributors in our database?",
```

```
  "result": "The degree of the contributors in our database is Ph.D.",
```

```
  "intermediate_steps": [
```

```
    {
```

```
      "query": "MATCH (:Pennsieve)-[:DATASET]->()-[:FILES]->()-[:DATA]->()-[:"
```

```

contributors]->()-[:INDEX]->(contributor)-[:degree]->(degree)\nRETURN contributor
, degree.value AS degree"
},
{
  "context": [
    {
      "contributor": {
        "children": 5.0,
        "type": "Object"
      },
      "degree": "Ph.D."
    },
    {
      "contributor": {
        "children": 4.0,
        "type": "Object"
      },
      "degree": "Ph.D."
    },
    {
      "contributor": {
        "children": 5.0,
        "type": "Object"
      },
      "degree": "Ph.D."
    },
    {
      "contributor": {
        "children": 4.0,
        "type": "Object"
      },
      "degree": "Ph.D."
    },
    {
      "contributor": {
        "children": 5.0,
        "type": "Object"
      },
      "degree": "Ph.D."
    },
    {
      "contributor": {},
      "degree": null
    }
  ]
}
]
}

```

Final LLM answer: The degree of the contributors in our database is Ph.D.

File - main

*****Time taken to execute CypherQAChain: 8.496 seconds

Process finished with exit code 0