

In [1]:

```
1 # Using pytrends library to see the trends on google searches from Google Trends
2
3 import pandas as pd
4 %pip install pytrends
5 from pytrends.request import TrendReq
6 import matplotlib.pyplot as plt
7 trends = TrendReq()
8
```

Requirement already satisfied: pytrends in c:\users\marjan\anaconda3\lib\site-packages (4.8.0)
Requirement already satisfied: requests>=2.0 in c:\users\marjan\anaconda3\lib\site-packages (from pytrends) (2.28.1)
Requirement already satisfied: lxml in c:\users\marjan\anaconda3\lib\site-packages (from pytrends) (4.9.1)
Requirement already satisfied: pandas>=0.25 in c:\users\marjan\anaconda3\lib\site-packages (from pytrends) (0.25.1)
Requirement already satisfied: idna<4,>=2.5 in c:\users\marjan\anaconda3\lib\site-packages (from requests>=2.0->pytrends) (2.8)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\marjan\anaconda3\lib\site-packages (from requests>=2.0->pytrends) (2.1.1)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\marjan\anaconda3\lib\site-packages (from requests>=2.0->pytrends) (2019.9.11)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\marjan\anaconda3\lib\site-packages (from requests>=2.0->pytrends) (1.24.2)
Requirement already satisfied: numpy>=1.13.3 in c:\users\marjan\anaconda3\lib\site-packages (from pandas>=0.25->pytrends) (1.16.5)
Requirement already satisfied: pytz>=2017.2 in c:\users\marjan\anaconda3\lib\site-packages (from pandas>=0.25->pytrends) (2019.3)
Requirement already satisfied: python-dateutil>=2.6.1 in c:\users\marjan\anaconda3\lib\site-packages (from pandas>=0.25->pytrends) (2.8.0)
Requirement already satisfied: six>=1.5 in c:\users\marjan\anaconda3\lib\site-packages (from python-dateutil>=2.6.1->pandas>=0.25->pytrends) (1.12.0)
Note: you may need to restart the kernel to use updated packages.

In [56]:

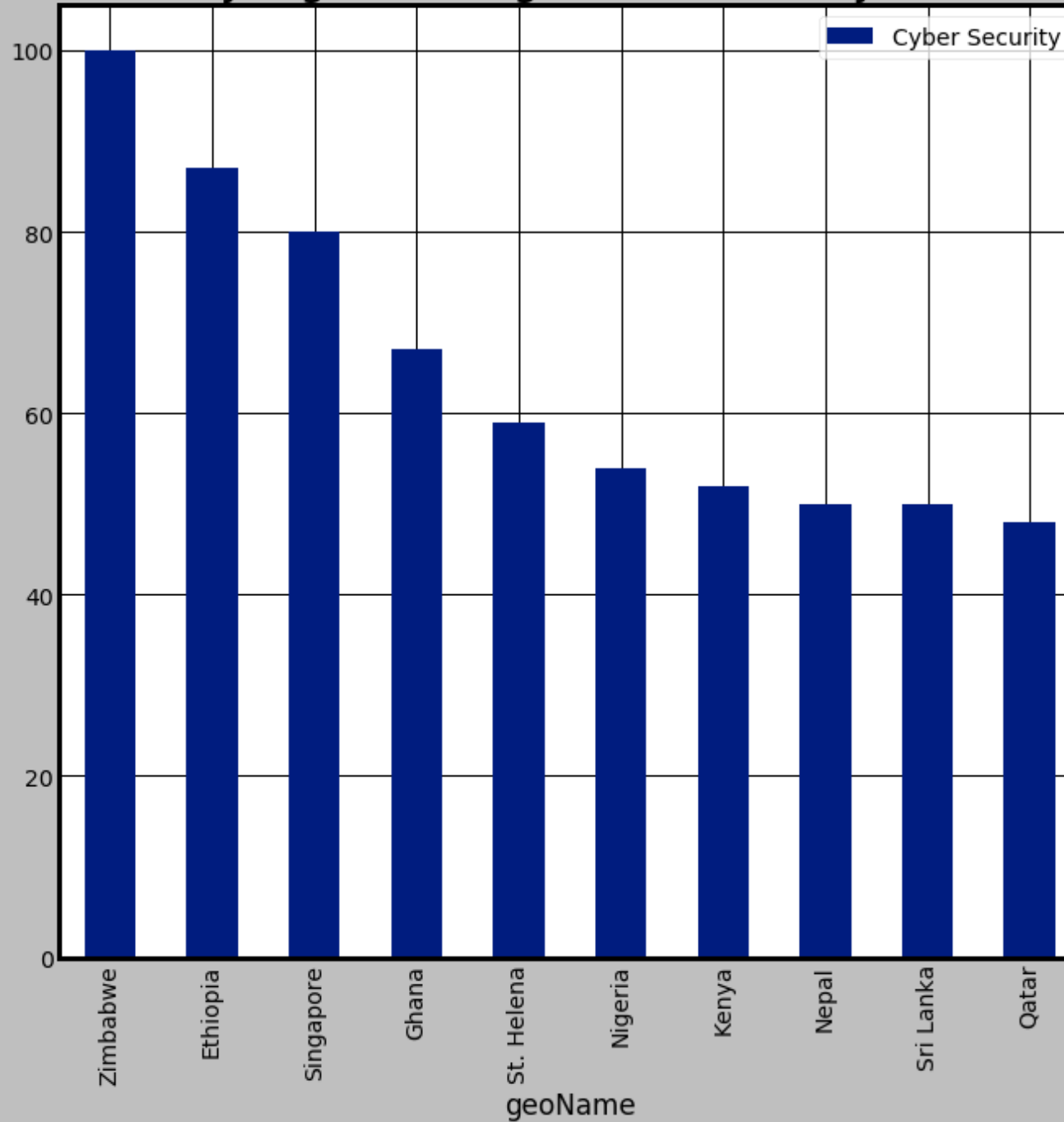
```
1  # Looking into the searches of "Cyber Security"
2  # Interest by Region: returns data for where the keyword
3  # is most searched as shown on Google Trends' Interest by Region section.
4
5  trends.build_payload(kw_list=["Cyber Security"])
6  data = trends.interest_by_region()
7  data = data.sort_values(by="Cyber Security", ascending=False)
8  data = data.head(10)
9  print(data)
10
11
12
```

Cyber Security	
geoName	
Zimbabwe	100
Ethiopia	87
Singapore	80
Ghana	67
St. Helena	59
Nigeria	54
Kenya	52
Nepal	50
Sri Lanka	50
Qatar	48

In [58]:

```
1  #Visualizing the interest by region with a bar chart
2
3  data.reset_index().plot(x="geoName", y="Cyber Security",
4                          figsize=(10,10), kind="bar")
5  plt.style.use('seaborn-dark-palette')
6  plt.title('Interest by Region of Google Searches for Cyber Security', fontweight='bold')
7
8  plt.show()
```

Interest by Region of Google Searches for Cyber Security



In [44]:

```
1 #checking what people are searching in switzerland
2
3 trends.trending_searches(pn='switzerland').head(10)
```

Out[44]:

	0
0	Srf Sport
1	Wildhaus
2	Mylène Farmer
3	Robbie Williams
4	Servette
5	FC Schaffhausen
6	ESAF 2022
7	Schwingen
8	Liverpool
9	Manchester United

In [26]:

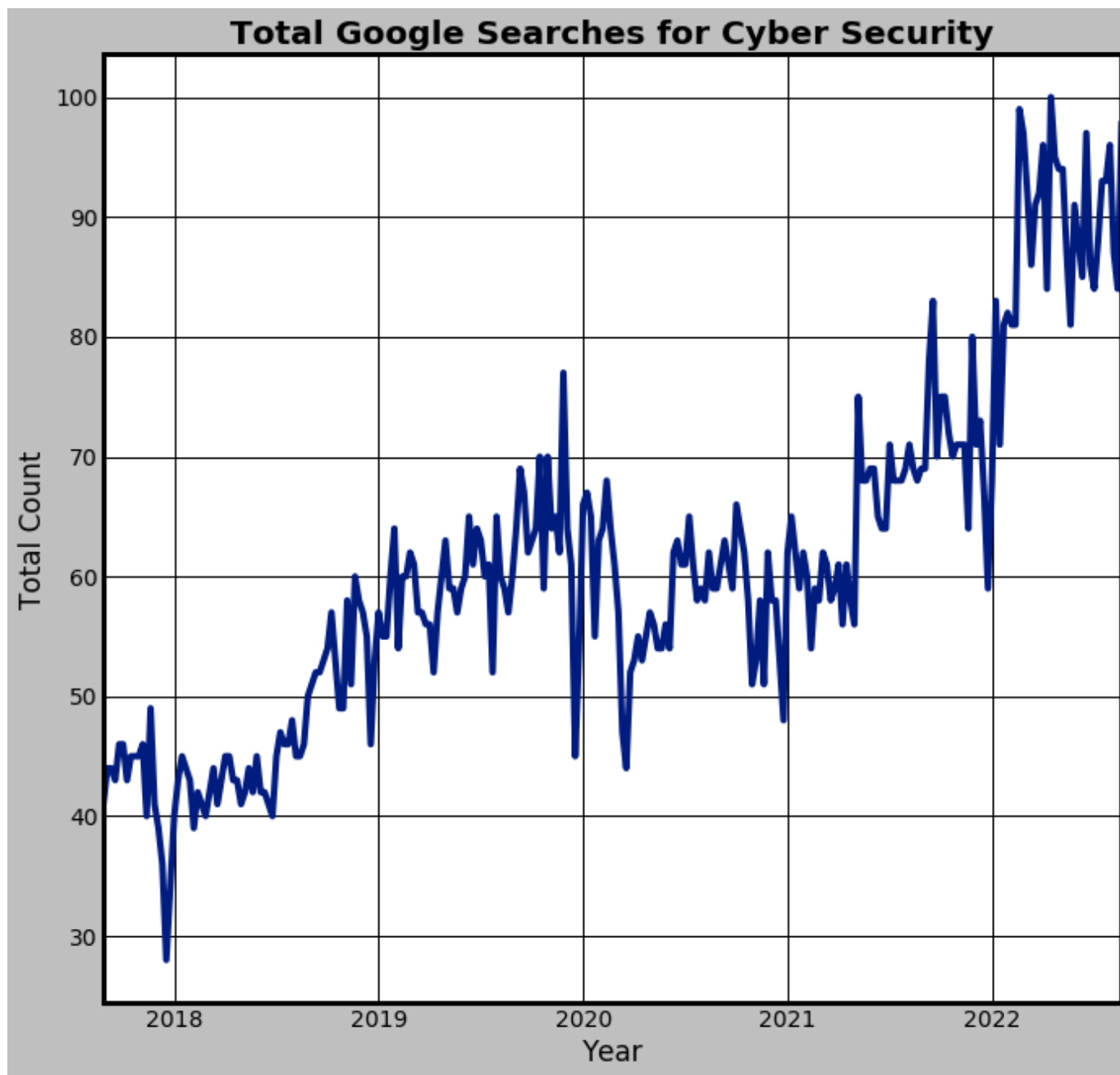
```
1 #checking what people are searching in switzerland - real time
2
3 trends.realtime_trending_searches(pn='CH').head(10)
```

Out[26]:

	title	entityNames
0	FC Zürich, Swiss Super League, FC Basel 1893	[FC Zürich, Swiss Super League, FC Basel 1893]
1	Pac-Man World, Nintendo, Xbox One, BNE Enterta...	[Pac-Man World, Nintendo, Xbox One, BNE Entert...
2	System, Enterprise, Industry	[System, Enterprise, Industry]
3	Energy, Enterprise, Energy crisis	[Energy, Enterprise, Energy crisis]
4	Luca Dürholtz, SV Elversberg, Rot-Weiss Essen,...	[Luca Dürholtz, SV Elversberg, Rot-Weiss Essen...
5	Henry Cavill, The Witcher, Superman, Highlande...	[Henry Cavill, The Witcher, Superman, Highland...
6	SummerDays Festival, Thurgau	[SummerDays Festival, Thurgau]
7	Mario Balotelli, Vincenzo Montella, Adana Demi...	[Mario Balotelli, Vincenzo Montella, Adana Dem...
8	Enterprise, Market research, Medicine	[Enterprise, Market research, Medicine]
9	School, Missouri, School district, Corporal pu...	[School, Missouri, School district, Corporal p...

In [50]:

```
1  # Finding out how the total searches for the phrase we
2  # are looking into has changed over time
3
4  # Connecting to Google and building the payload
5  data = TrendReq(hl='en-US', tz=360)
6  data.build_payload(kw_list=['Cyber Security'])
7  data = data.interest_over_time()
8
9  figure, axes = plt.subplots(figsize=(10, 10))
10 data['Cyber Security'].plot()
11 plt.style.use('seaborn-dark-palette')
12 plt.title('Total Google Searches for Cyber Security', fontweight='bold')
13 plt.xlabel('Year')
14 plt.ylabel('Total Count')
15 plt.show()
16
17
```



In []:

```
1  # Coclusion:
2
3  # The google searches for the phrase " Cyber Security "
4  # is increasing and has an upward trend
5
6  # Businesses can use Google Search Analysis to see
7  # what everyone is searching for at any time and what
8  # are the interests of cosumers of their products
9  # to be able to predict the trends and be ahead of the market
10
11
```