wiki-research

March 18, 2024

Lang Links (links btwn pages): https://www.mediawiki.org/wiki/API:Langlinks https://en.wikipedia.org/w/api.php?action=query&titles=Albert%20Einstein&prop=langlinks&format=json&llli

Rest Api: https://wikimedia.org/api/rest_v1/

Page views: https://wikitech.wikimedia.org/wiki/Analytics/AQS/Pageviews

By Article: https://wikimedia.org/api/rest_v1/metrics/pageviews/per-article/en.wikipedia/all-access/all-agents/Albert_Einstein/monthly/20220101/20220131

By Page: https://wikimedia.org/api/rest_v1/metrics/edits/per-page/en.wikipedia/Albert%20Einstein/user/daily/20220101/20220131

Metrics that I am using (wiki stat) https://stats.wikimedia.org/#/it.wikipedia.org/reading/total-page-views/normal|table|2-year|agent~user|monthly

Get edits/contributions https://wikimedia.org/api/rest_v1/metrics/edits/aggregate/en.wikipedia/user/content/d

Get page views /metrics/pageviews/per-article/{project}/{access}/{agent}/{article}/{granularity}/{start}/{end} https://wikimedia.org/api/rest_v1/metrics/pageviews/aggregate/en.wikipedia.org/all-access/user/hourly/2015100100/2015100123

[2]:
```
import requests
import matplotlib.pyplot as plt
from datetime import datetime
import pandas as pd

class WikiDataVisualizer:
    def __init__(self):
        self.codes = self.get_codes()
        self.start_date = '2016010100'
        self.end_date = '2024010100'

    def get_codes(self):
        codes = pd.read_csv("language_codes.csv")
        codes = codes.set_index("country")
        return codes

    def get(self, url):
        headers = {'User-Agent': 'CoolBot/0.0 (https://example.org/coolbot/;␣
 ↪coolbot@example.org) generic-library/0.0 Cool Bot (jesgarbage@gmail.com)'}
```

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        response = requests.get(url, headers=headers)
        if response.status_code == 200:
            return response.json()
        else:
            return None

    def fetch_pageviews(self, country):
        url = f"https://wikimedia.org/api/rest_v1/metrics/pageviews/aggregate/
↪{country}.wikipedia.org/all-access/user/monthly/{self.start_date}/{self.
↪end_date}"
        return self.get(url)

    def fetch_edits(self, country):
        url = f"https://wikimedia.org/api/rest_v1/metrics/edits/aggregate/
↪{country}.wikipedia/user/content/monthly/{self.start_date}/{self.end_date}"
        return self.get(url)

    def add_launch(self, axs):
        chatgpt_launch_date = datetime(2022, 11, 30)
        for ax in axs:
            ax.axvline(chatgpt_launch_date, color='red', linestyle='--',␣
↪label='ChatGPT Launch')
            ax.legend()

    def plot(self, views, edits, country, code):
        fig, axs = plt.subplots(1, 2, figsize=(12, 6))
        self.add_launch(axs)

        if views:
            timestamps_views = [item['timestamp'] for item in views['items']]
            views_data = [item['views'] for item in views['items']]
            dates_views = [datetime.strptime(timestamp, '%Y%m%d%H') for␣
↪timestamp in timestamps_views]

            axs[0].plot(dates_views, views_data)
            axs[0].set_title(f"{country} ({code}) Page Views")
            axs[0].set_xlabel('Date')
            axs[0].set_ylabel('Page Views')
            axs[0].tick_params(axis='x', rotation=45)

        if edits:
            timestamps_edits = [item['timestamp'] for item in␣
↪edits['items'][0]["results"]]
            edits_data = [item['edits'] for item in␣
↪edits['items'][0]["results"]]
```

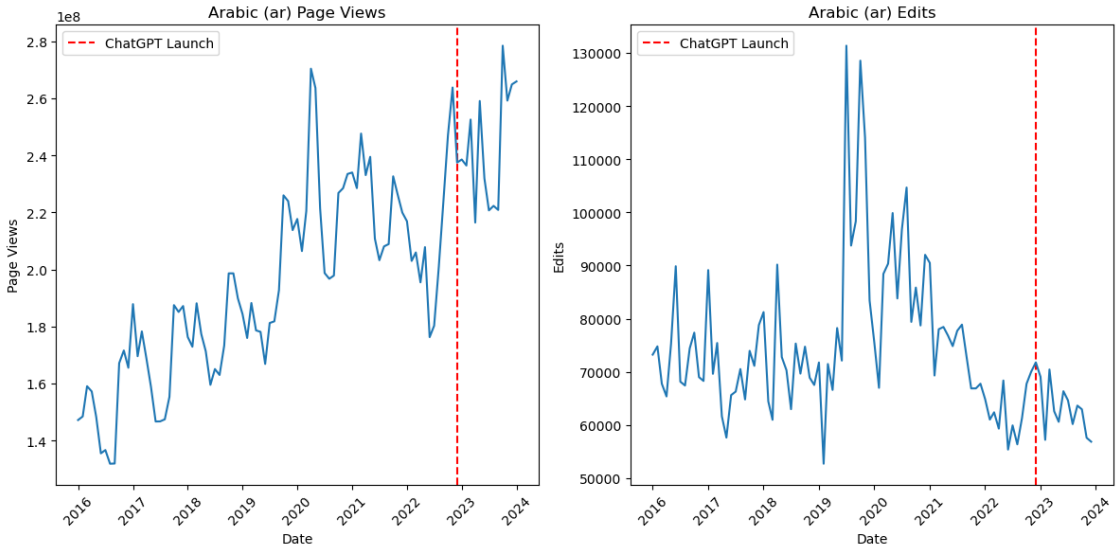
```
            dates_edits = [datetime.fromisoformat(timestamp.replace('Z', '+00:
↪00')) for timestamp in timestamps_edits]

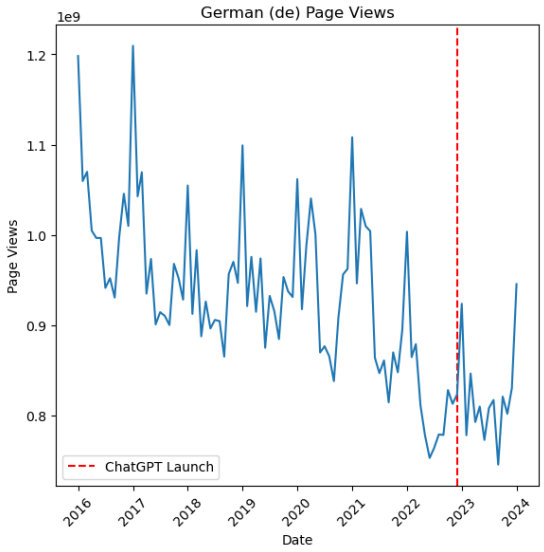
            axs[1].plot(dates_edits, edits_data)
            axs[1].set_title(f"{country} ({code}) Edits")
            axs[1].set_xlabel('Date')
            axs[1].set_ylabel('Edits')
            axs[1].tick_params(axis='x', rotation=45)

        plt.tight_layout()
        plt.show()

    def visualize_data(self):
        for country, row in self.codes.iterrows():
            code = row["code"]
            views = self.fetch_pageviews(code)
            if views is None:
                continue
            views_data = [item['views'] for item in views['items']]
            if any(view < 10**8 for view in views_data):
                continue
            edits = self.fetch_edits(code)
            self.plot(views, edits, country,code)


visualizer = WikiDataVisualizer()
visualizer.visualize_data()
```

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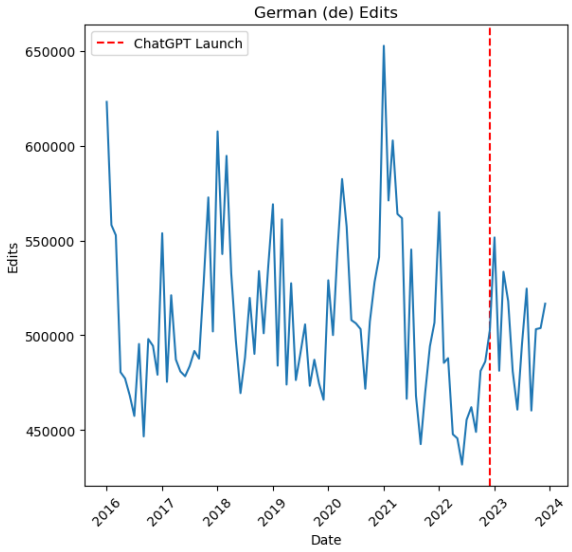
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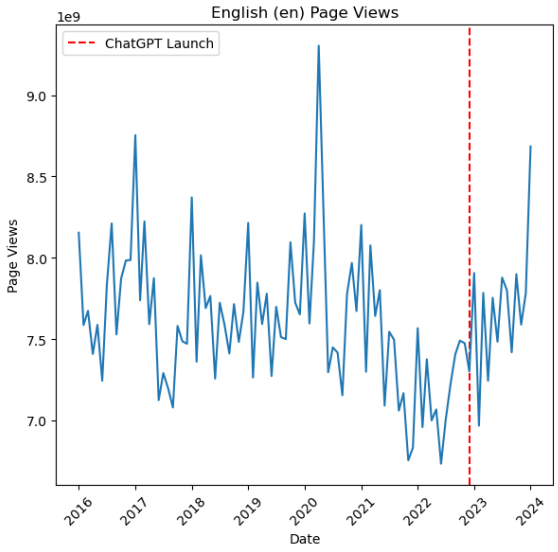
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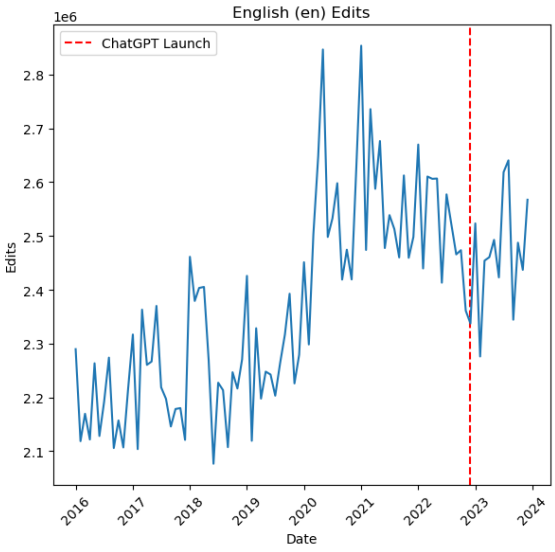
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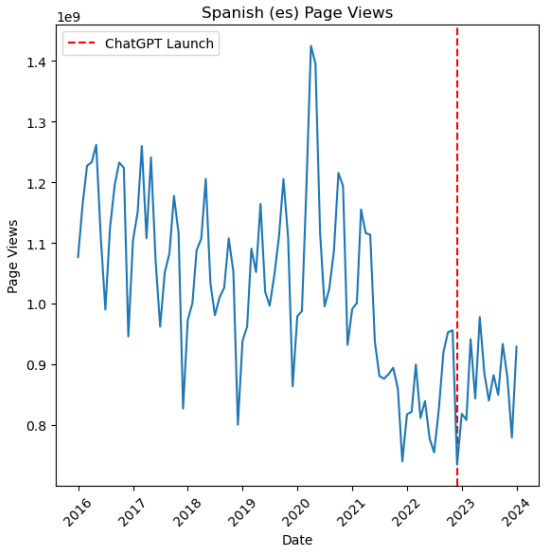
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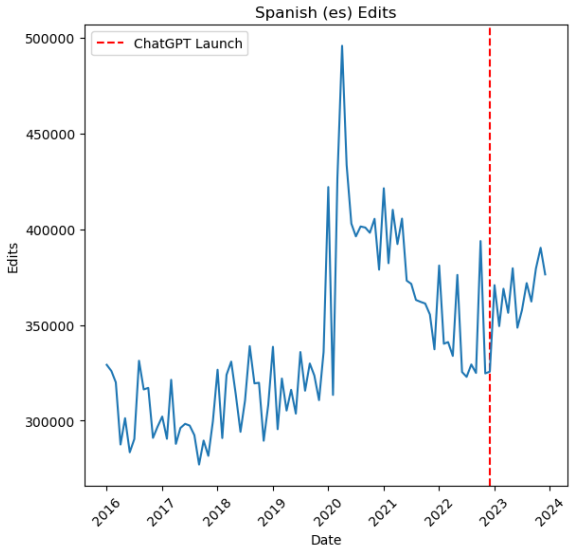
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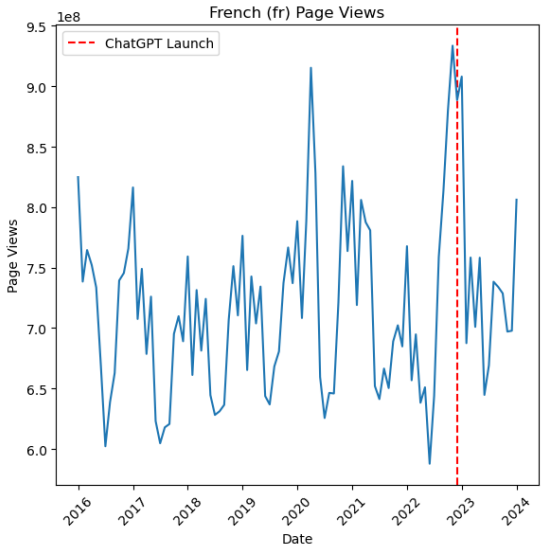
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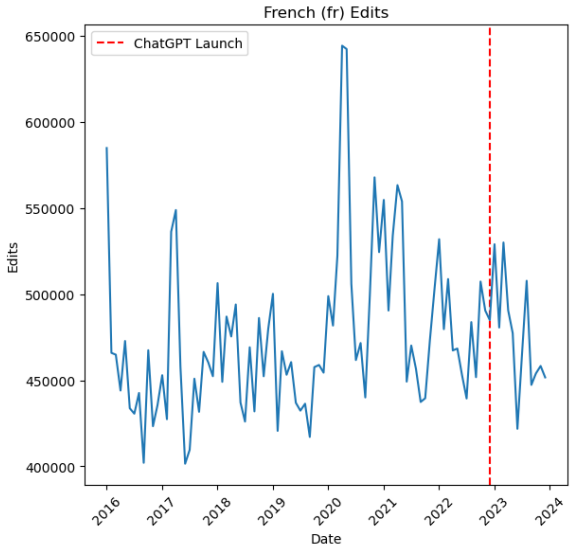
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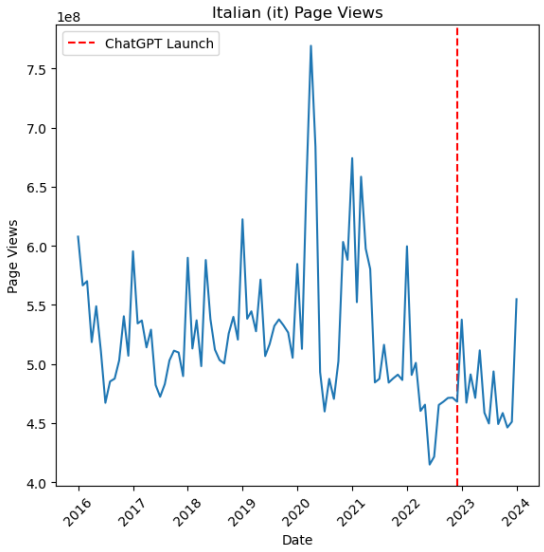
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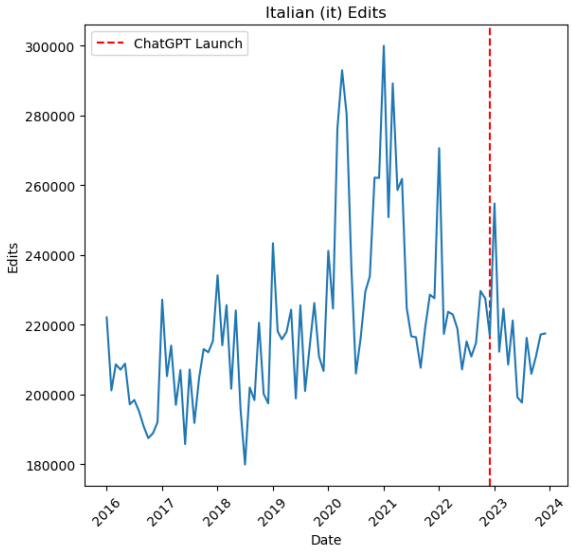
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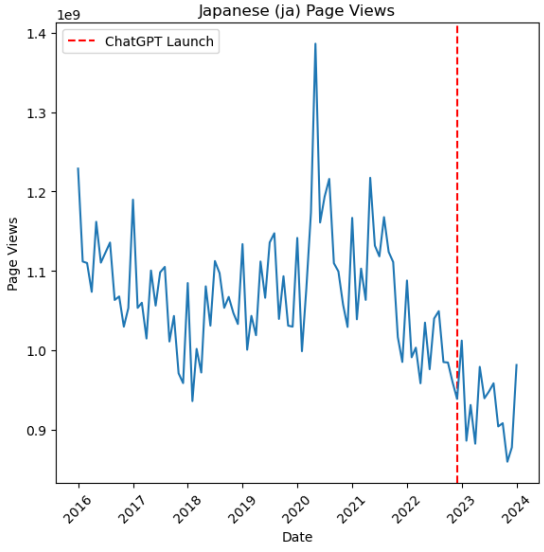
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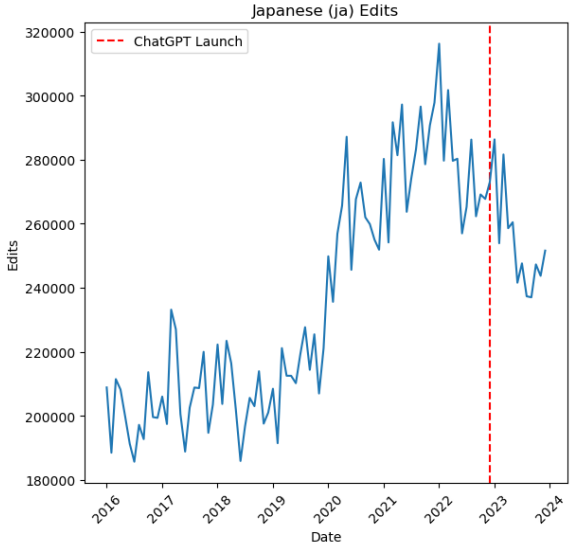
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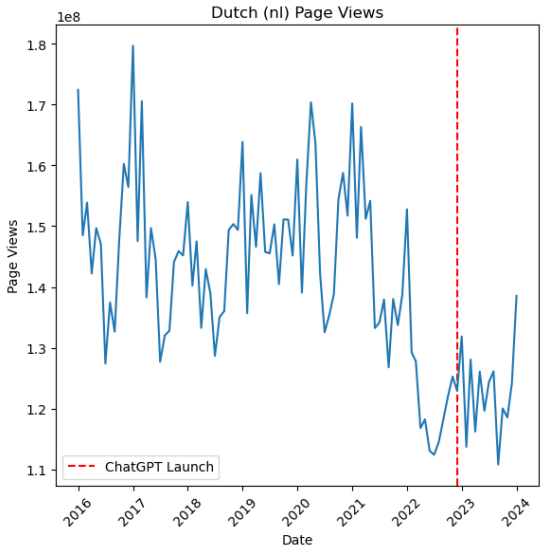
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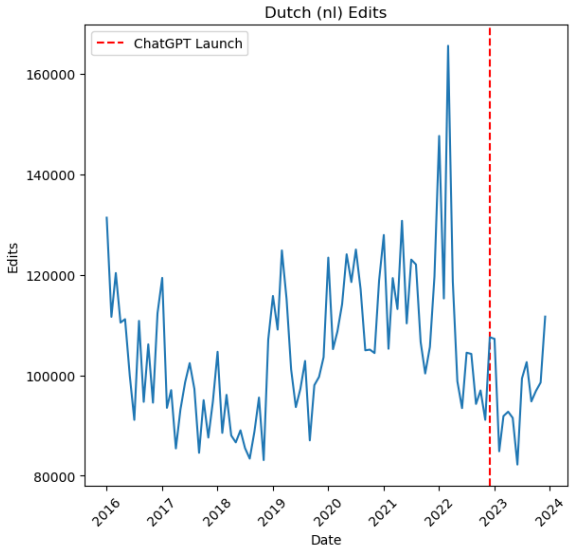
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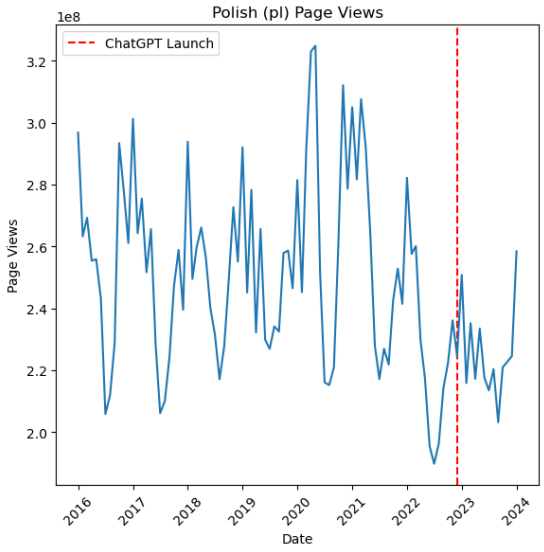
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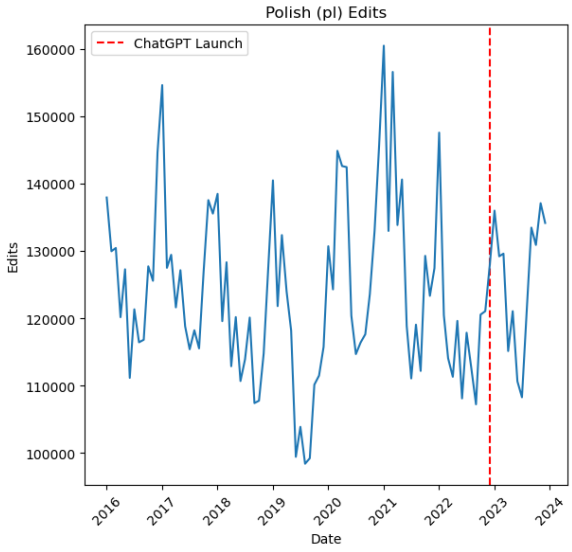
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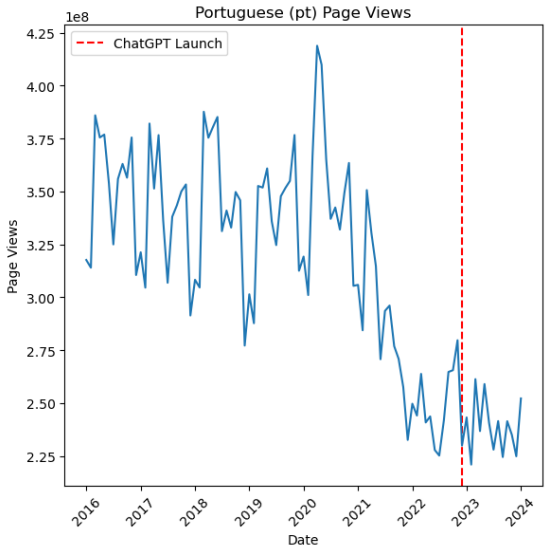
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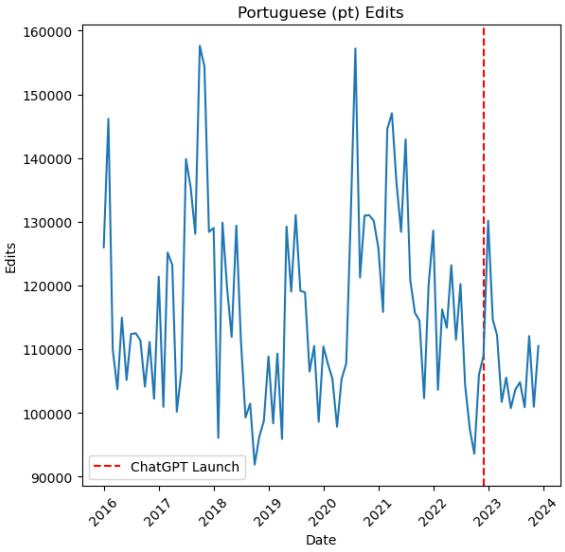
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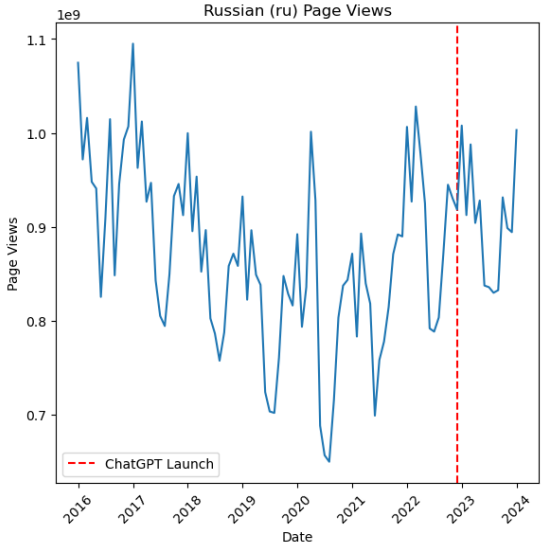
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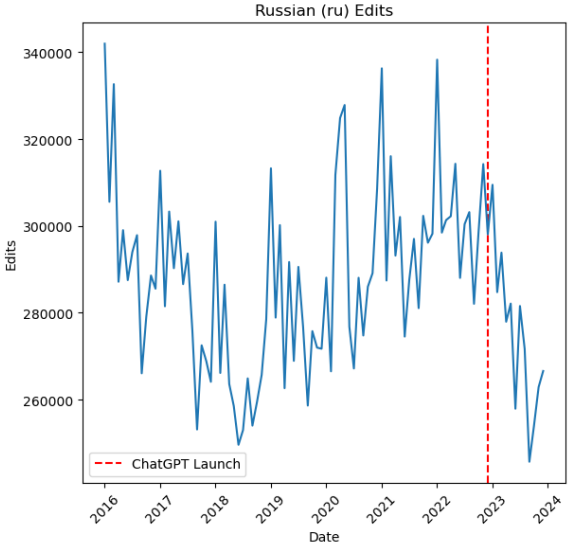
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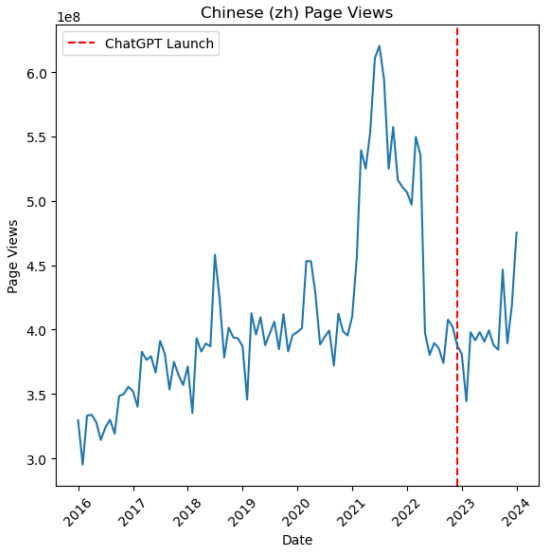
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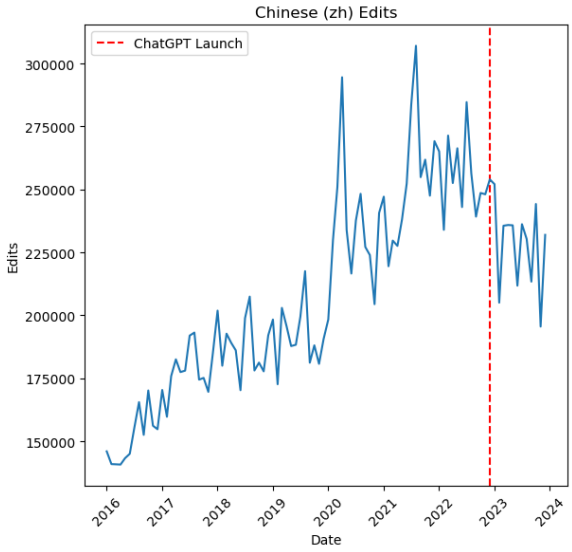
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