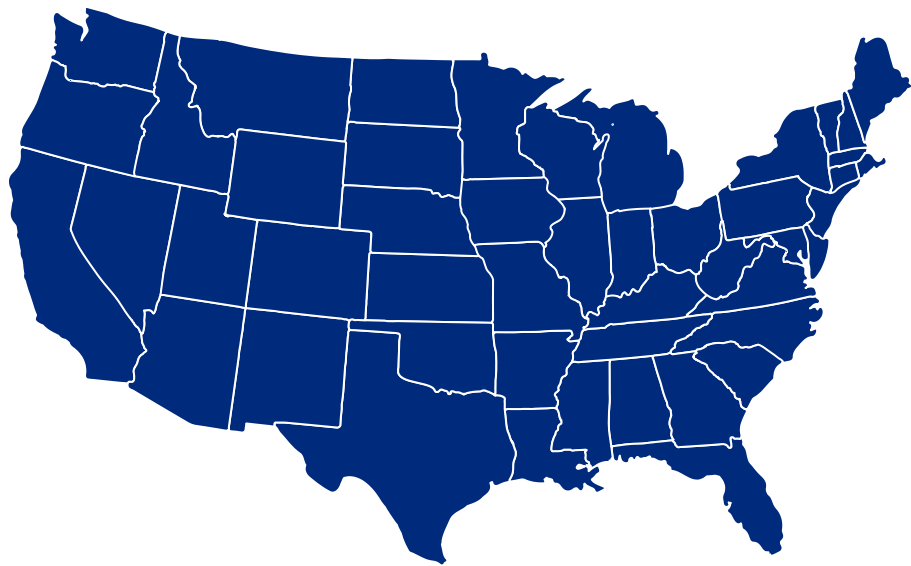


AI Deepfake Detection in US election

中華電信題目不是通訊我就報

第一組：徐瑞澤、陳樂穎、解心婷、曾家祐、游宗易

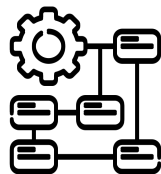


Agenda



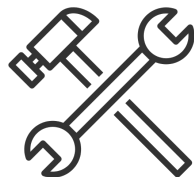
Motivation

關注美國政治



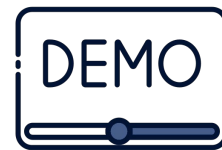
Architecture

整體架構介紹



Design & Technique

技術細節說明



Results

成果展示

Agenda



Motivation

關注美國政治



Architecture

整體架構介紹



Design & Technique

技術細節說明



Results

成果展示

若發生中臺衝突，臺灣民眾對美國的看法

54.7%

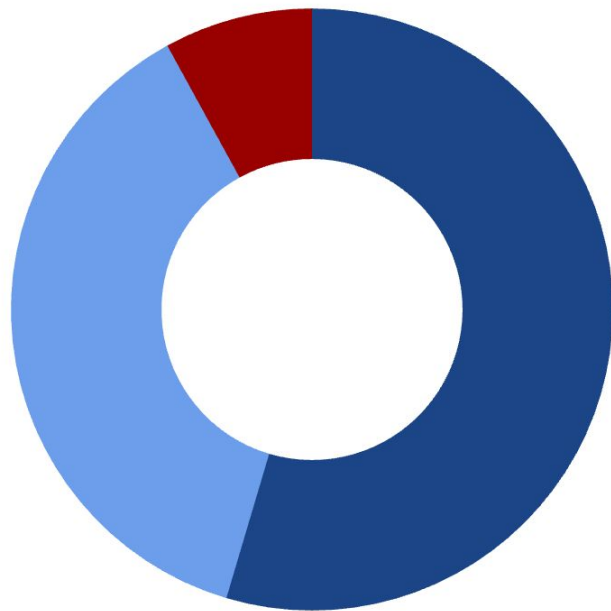
無論選舉結果

皆會協助台灣

37.5%

無論選舉結果

皆不會協助台灣



8.0%
特定黨派當選
才會協助台灣

據外媒調查 1500 位臺灣人觀點, 資料來源
<https://www.brookings.edu/articles/how-taiwan-and-south-korea-see-democrats-republicans-and-america/>

但是 ... 這些變數發生了

Trump says Taiwan stole America's chip industry. Could a Trump-Vance win reshape America's relationship with China – and Taiwan?

But that's not true

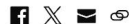
Analysis by [Wayne Chang](#), CNN

🕒 5 minute read · Updated 7:33 PM EDT, Wed July 24, 2024



Analysis by [Simone McCarthy](#), CNN


🕒 7 minute read · Published 4:39 AM EDT, Thu July 18, 2024



於是 臺灣的新聞

NewsTalk新聞

洪耀南觀點》2024美國總統大選：習近平更希望誰當選？




NewsTalk新聞

美國大選與兩岸角力學者齊聚東海大學解讀全球新局勢| 政治

距離2024美國大選僅剩不到20天，亞洲政經與和平交流協會日前在東海大學社會科學院舉辦「美國大選與兩岸關係」座談會，針對美中競爭、國際經濟局勢與台灣...

7 小時前




中央社 CNA

經濟與移民成美大選倒數焦點 弱勢選民陷抉擇| 國際

美國總統大選倒數3週，民主黨賀錦麗、共和黨川普主攻通膨與移民，這2大選民最關切的議題對經濟弱勢民眾影響尤大，賀錦麗對移民友善，經濟則被視為川普...

2 天前




中央社 CNA

川普：澤倫斯基根本不該讓俄烏戰爭發生| 國際


中央社華盛頓17日綜合外電報導，美國共和黨總統候選人川普今天將俄烏戰爭歸咎於烏克蘭總統澤倫斯基，稱他未能善盡職責阻止這場戰爭發生。

1 天前



奇摩新聞

搖擺州是什麼？2024美國大選搖擺州有哪些？最新民調為何？



The News Lens 關鍵評論網

2024美國大選小遊戲：五個冷知識讓你比別人更懂美國政治！

1 天前



臺灣人瘋美國政治


真正了解多少

中央社 CNA

美選提前投票陸續開跑 兩陣營搖擺州催票| 國際

2024美國總統選舉競爭激烈，搖擺州提前投票選民成為兵家必爭之地，關鍵的喬治亞州與北卡羅來納州都出現破紀錄投票人潮，總計全美的有超過500萬選民已完成...

19 小時前




奇摩新聞

2024美國大選日期、開票時程、選舉制度、搖擺州、賀錦麗對決川普連有那些人拚總統？美選重點一次看

美國總統拜登宣布退選後，表態支持副總統賀錦麗成為民主黨總統候選人，而民主黨全國代表大會於8月19日至22日舉行，第二天，賀錦麗正式獲得民主黨提名作為競選...

2 天前




公視新聞網PNN

美國大選提前投票開跑 各州制度為何？有哪些優點？ | 公視新聞網 PNN

美國總統大選將於11月5日舉行，與台灣選舉方式不同，美國除了投票日當天親自去投票所投票外，還會視各州規定可提前至投票所投票或是郵寄選票，...

1 天前



BBC

美國大選搖擺州投票率創新高 選民：關乎存亡的選舉

美國選戰進入最後階段，關鍵搖擺州之一的喬治亞州，提前投票率創下歷史新高。本周首個投票日（10月15日），超過32.8萬人完成投票，是上屆選舉的兩倍多。

2 天前



Newtalk新聞

李顯龍評美國大選：美中緊張情緒短時間無法化解 世界正視中國影響力| 國際

隨著美國總統大選的日子不斷逼近，越來越民眾開始關注兩黨候選人當選後，分別會對國際局勢造成何種影響。然而，新加坡國務資政、前新加坡總理李顯龍...

7 小時前




公視新聞網PNN

美大選兩黨爭相搶攻賓州選票 川普號召支持者衝「餅乾民調」 | 公視新聞網 PNN

美國賓州是大選的關鍵搖擺州，吸引兩黨爭相搶攻，川普號召支持者到賓州一家麵包店，為川普餅乾街高質、提振士氣。賀錦麗陣營則發動陸戰，...

4 天前




中央社 CNA

賀錦麗對決川普選情熱美關鍵搖擺州喬治亞提前投票首日票數創高| 國際

中央社亞特蘭大15日綜合外電報導，美國2024年大選11月5日登場，喬治亞州今天加入其他多州展開提前投票作業。官方數據顯示，這個關鍵搖擺州之一的提前投票...

3 天前



中央社 CNA

美國選舉成性別大戰賀錦麗與川普形象微調挖票| 國際

美國各項民調顯示，女性選民與保守派白人選民是兩黨爭奪的關鍵選民，賀錦麗與川普在性別與種族形象上微調挖票...



大紀元新聞網

中共假冒美國人影響2024年大選



但在進一步分析前需要

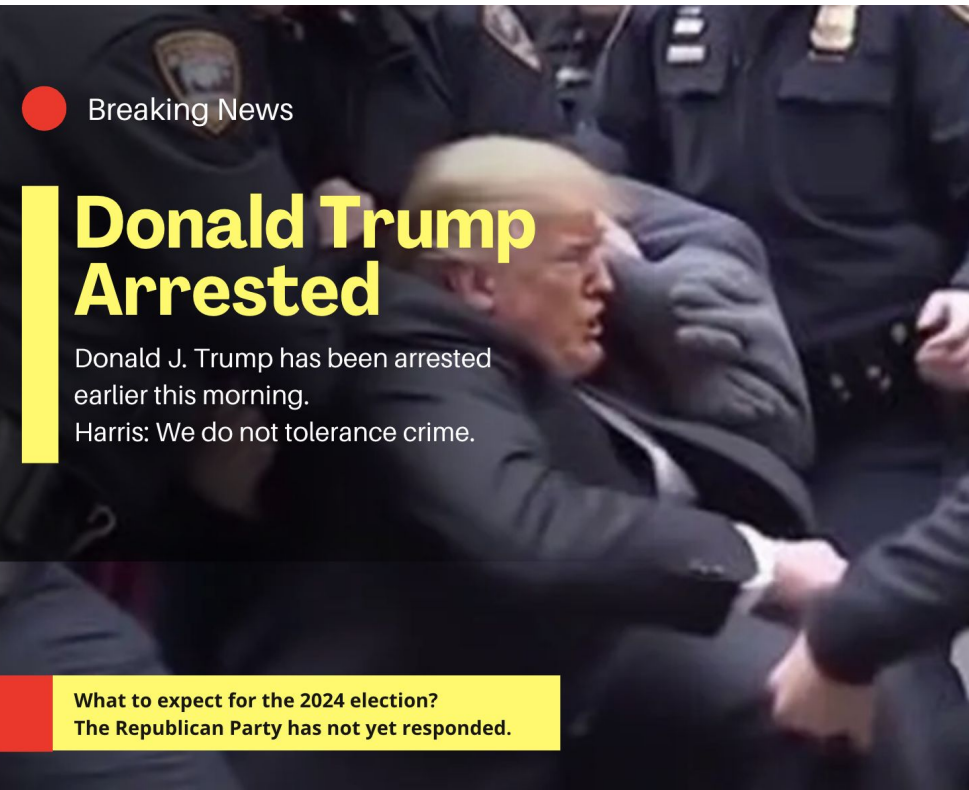
1. 了解美國政治現況
2. 充足資料來源
3. 參考多方論述

4. 媒體識讀能力

Which is **TRUE** ?



Which is TRUE ?

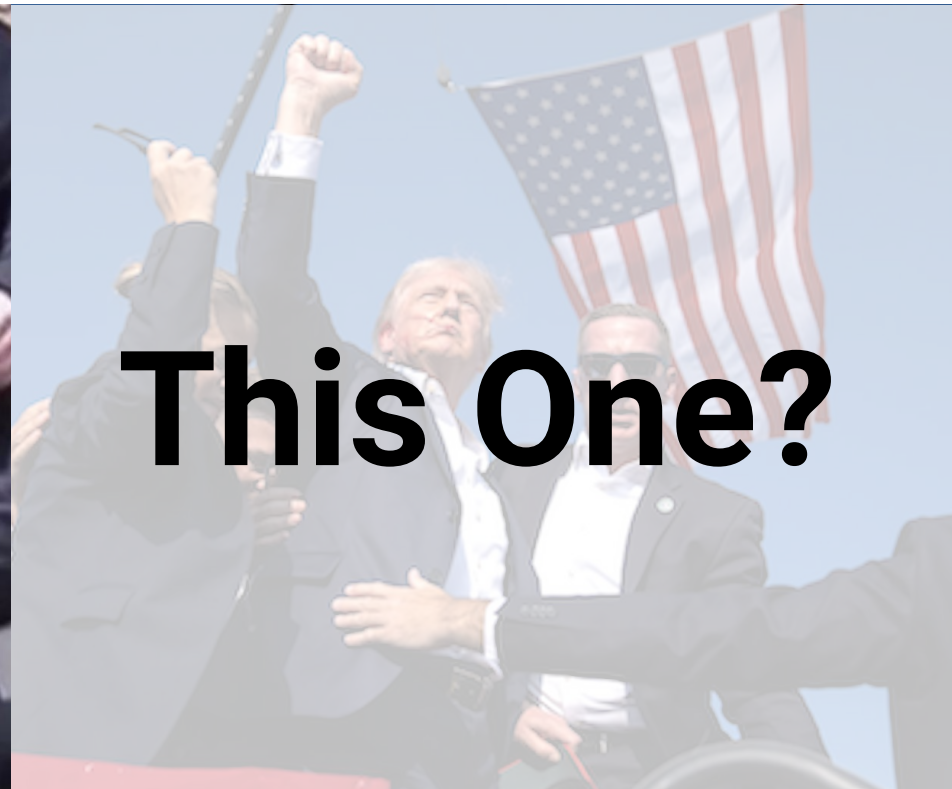


Breaking News

Donald Trump Arrested

Donald J. Trump has been arrested earlier this morning.
Harris: We do not tolerance crime.

What to expect for the 2024 election?
The Republican Party has not yet responded.



This One?

Which is TRUE ?

Or This One

● Breaking News

Donald Trump's Rally Shot

Donald J. Trump was apparently shot in the attempted assassination.

July 13, 2024, coverage of the Trump assassination attempt

如何提高媒體識讀能力

1. 多方閱讀與分析
2. 不輕信未經證實言論
3. 多加查證、不散佈傳言

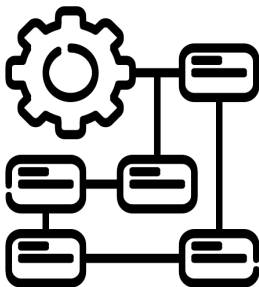
4. AI Deepfake Detection in US election

Agenda



Motivation

關注美國政治



Architecture

整體架構介紹



Design &
Technique

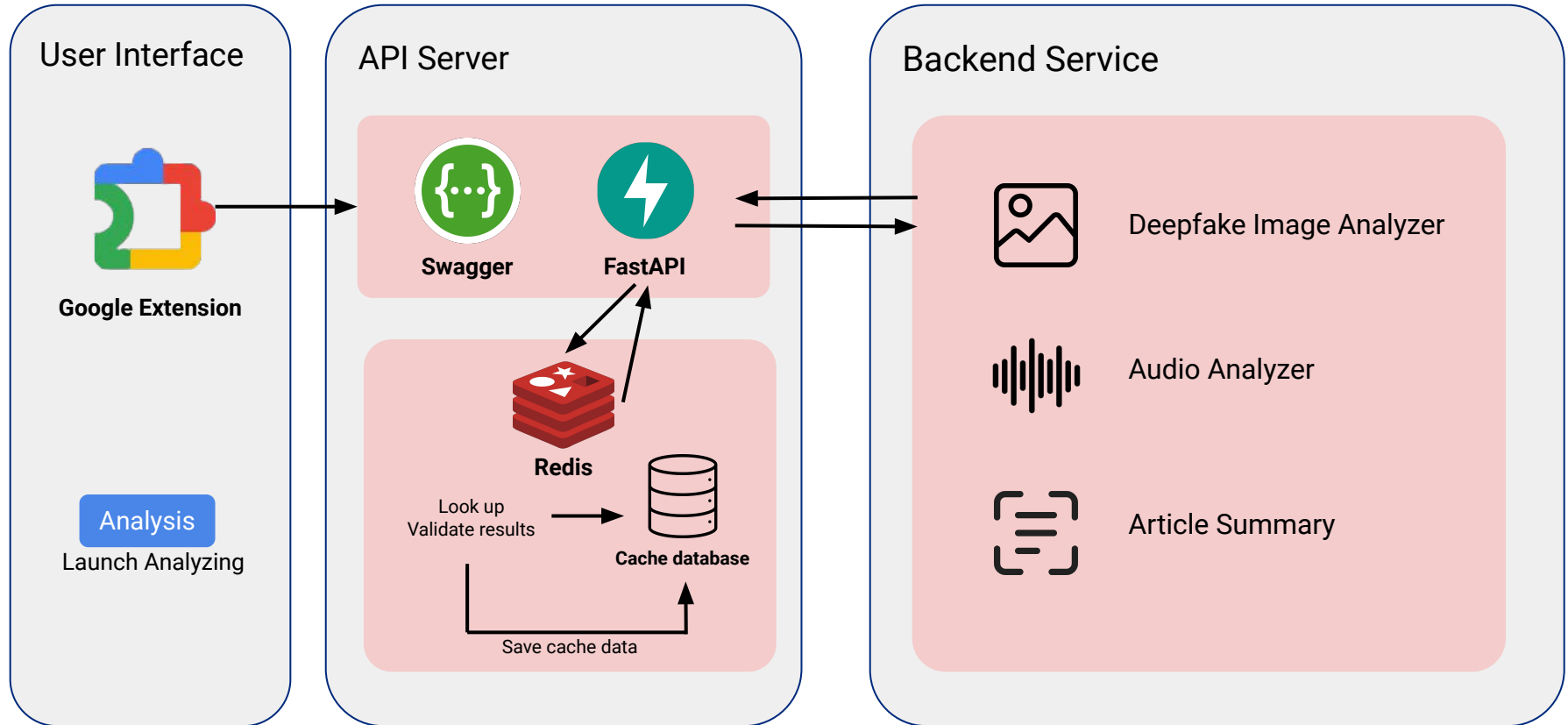
技術細節說明



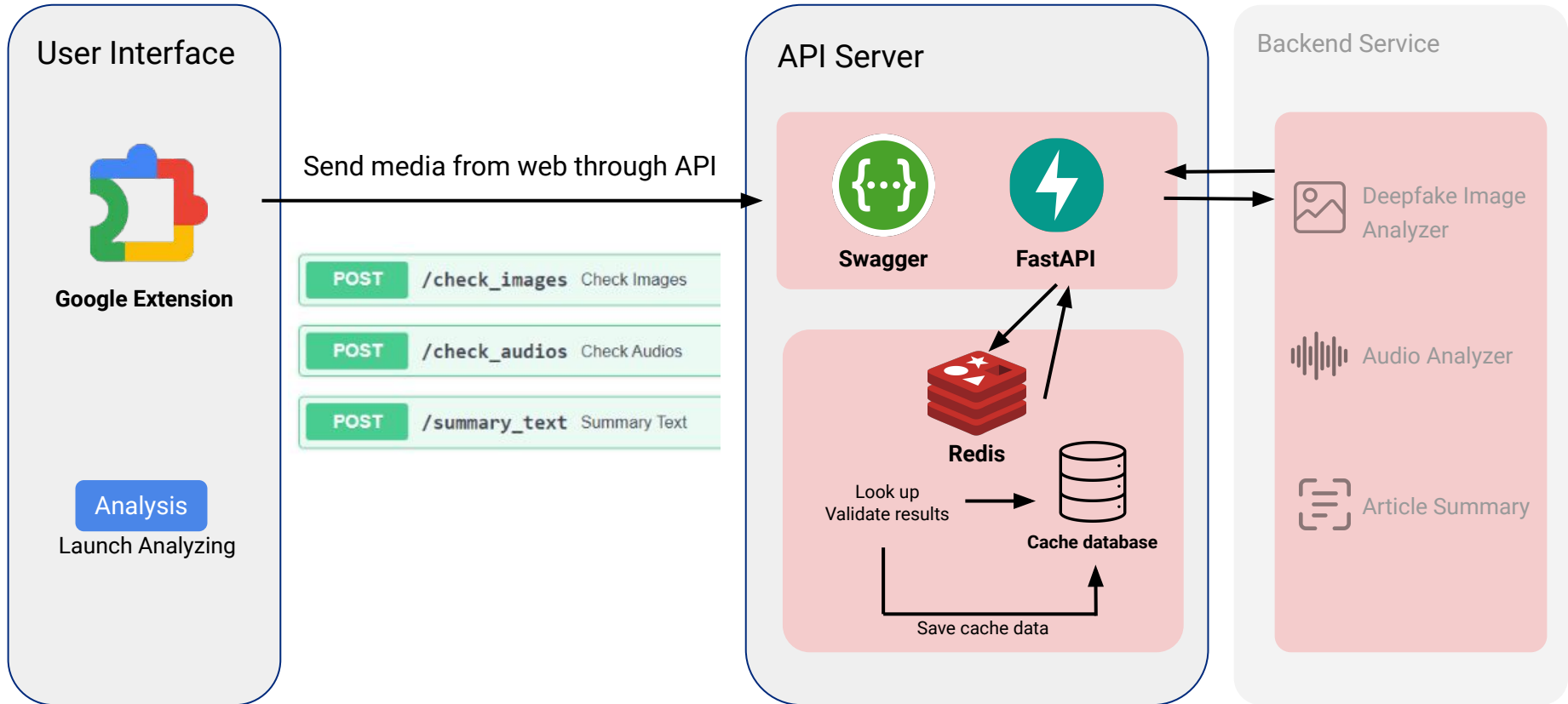
Results

成果展示

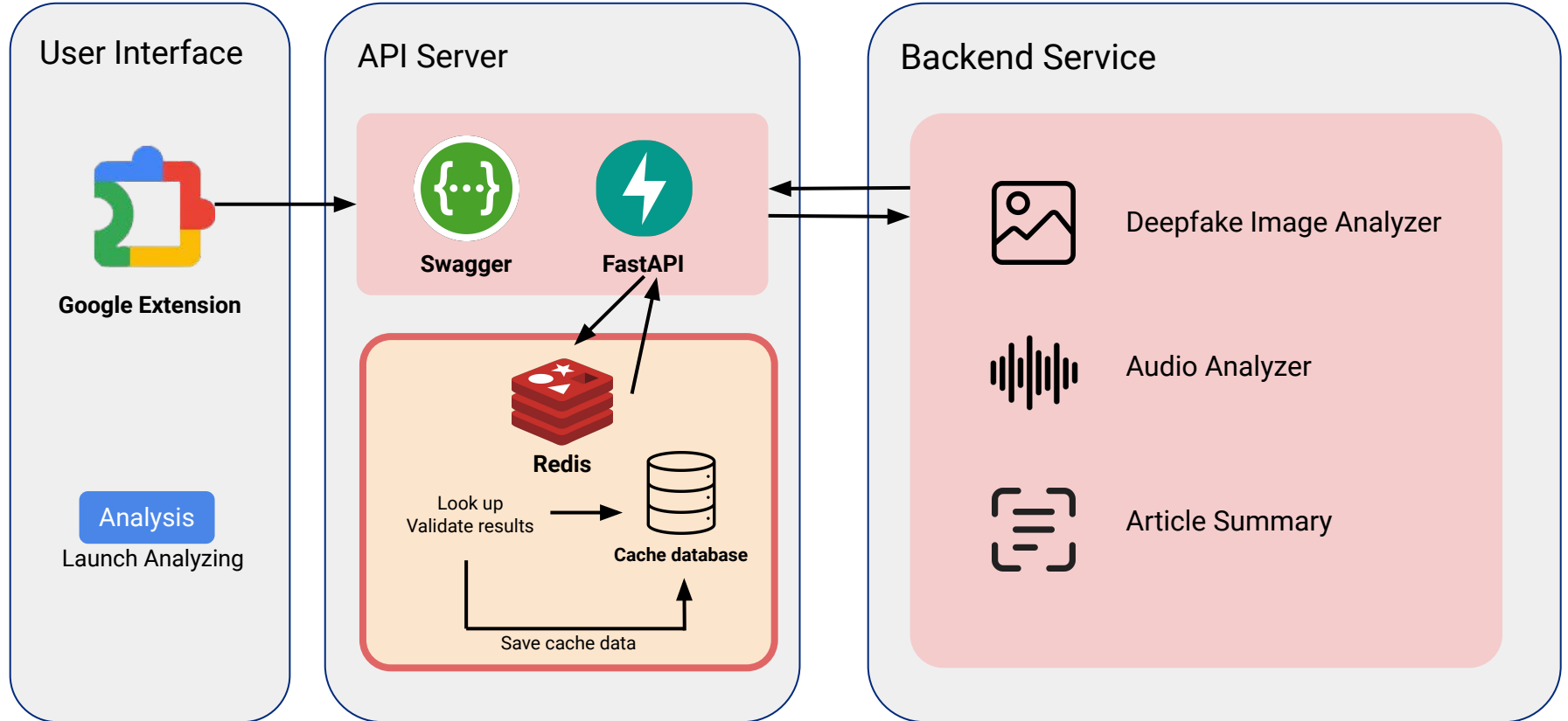
Architecture



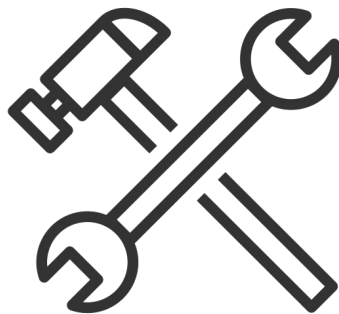
Architecture



Architecture



Agenda



Motivation
關注美國政治



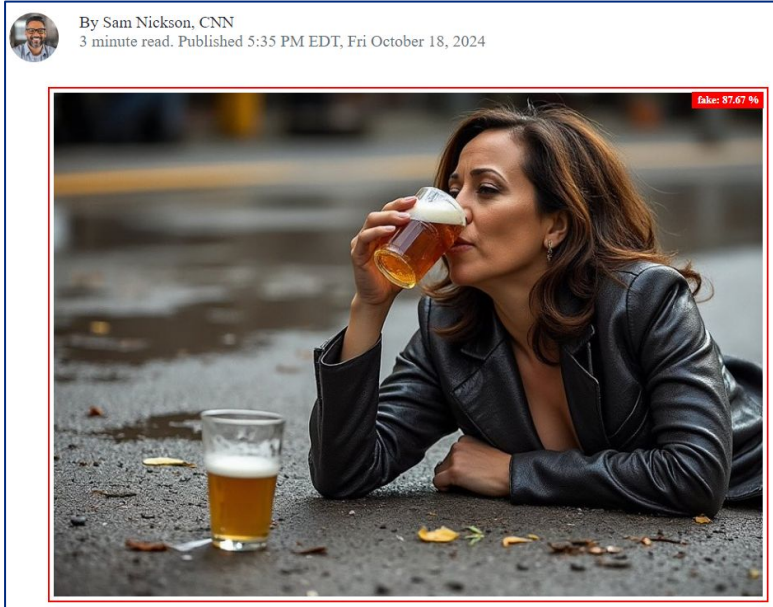
Architecture
整體架構介紹

**Design &
Technique**
技術細節說明



Results
成果展示

Chrome Extension

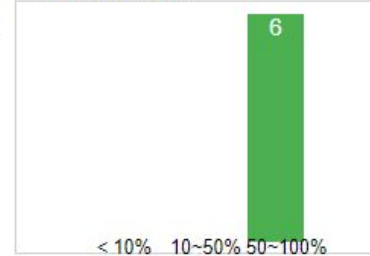


Parsing Image and show the detection result

News Analysis Result

Below is the result of deepfake images and video detection

Figure Analysis



Video Analysis

There is no video in this news.

Article Summarize

- The White House has dismissed rumors about Vice President Kamala Harris's alleged alcohol addiction as 'entirely baseless' and 'fabricated'.
- The rumors circulated on social media without credible evidence, prompting a spokesperson to emphasize Harris's commitment to her responsibilities and health.
- Political commentators suggest these rumors may be part of a disinformation campaign aimed at undermining Harris's credibility.
- Despite the spread of false claims, analysts believe they are unlikely to significantly impact Harris's standing within the administration or among supporters.

Does the information given helps you ?

Yes

No

Analysis Result Panel

API Endpoint

FastAPI 0.1.0 OAS 3.1

/openapi.json

default

GET

/ Root

POST

/check_images Check Images

POST

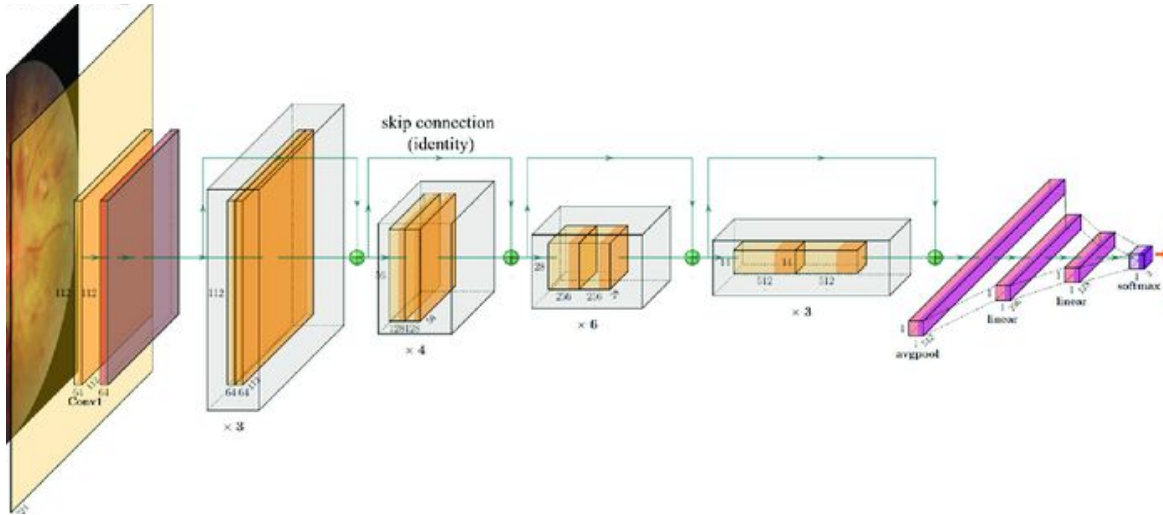
/check_audios Check Audios

POST

/summary_text Summary Text

Deepfake Image Analyzer

Resnet-based neural network with pretrain and finetune



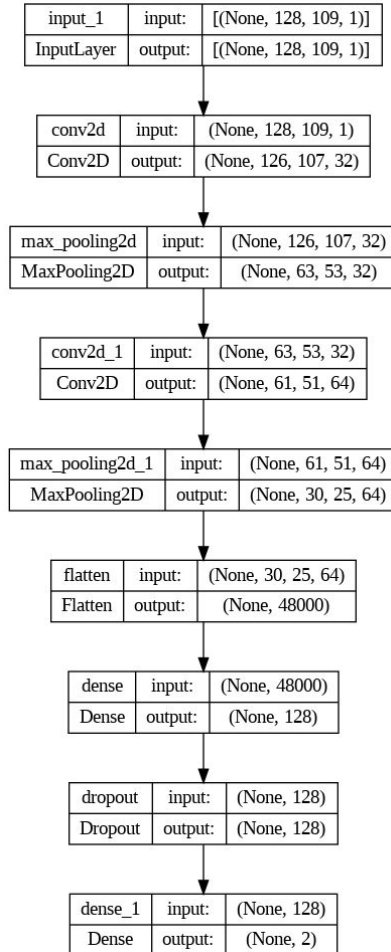
1st: Thousands of human images



2nd: hundreds of politics images

Audio Analyzer

1. Preprocess:
 - a. Decide the part of audio to detect
 - b. Resize the input to require shape
2. Model:
 - a. CNN based model to detect the model is fake or not



Article Summary



Use GPT-4o to Summarize the news content

Article Summarize

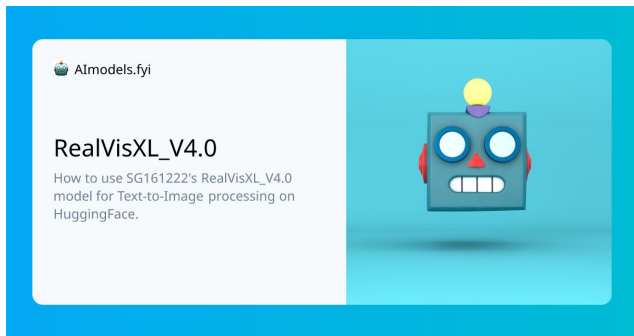
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- Political commentators suggest these rumors may be part of a disinformation campaign aimed at undermining Harris's credibility.
- Despite the spread of false claims, analysts believe they are unlikely to significantly impact Harris's standing within the administration or among supporters.

Summarized by gpt-model

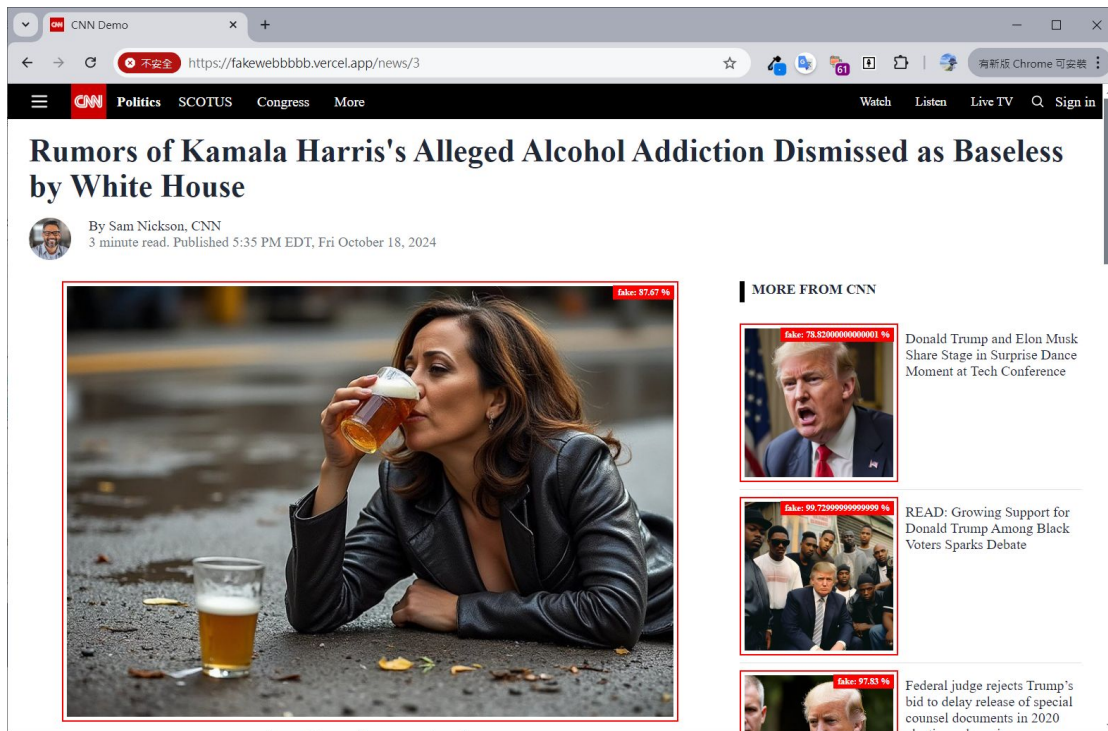
Fake Website Demo



Frontend Framework

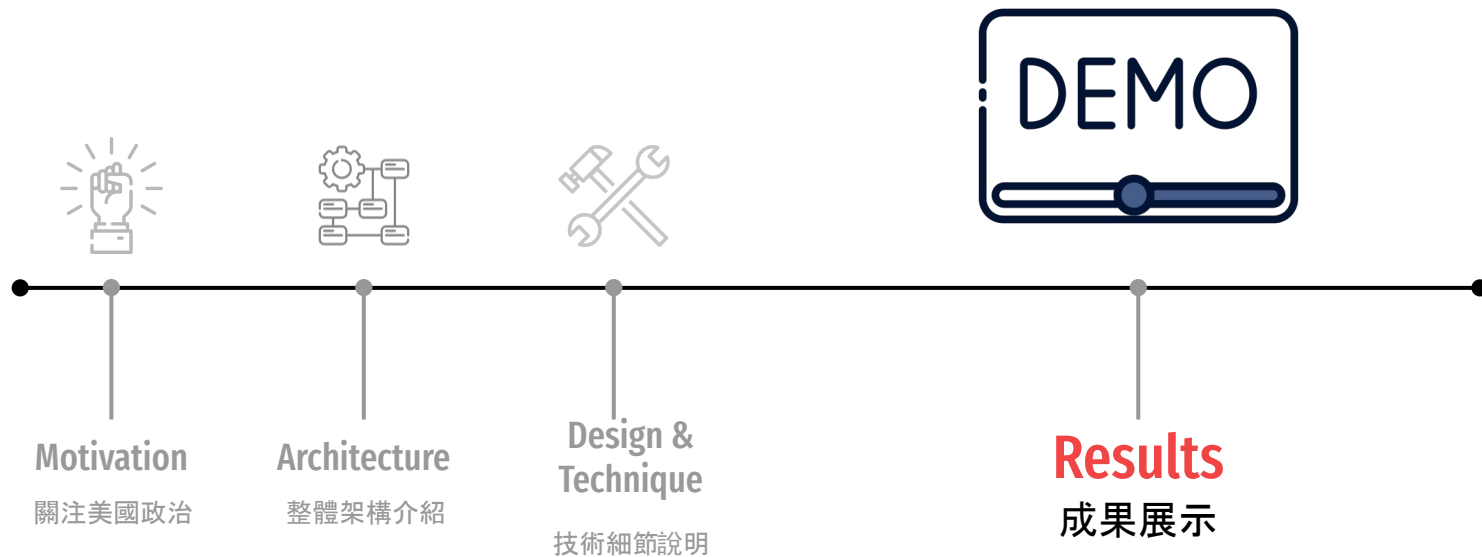


Fake image generation



Fake news simulation website

Agenda



Demo

CNN Demo

https://fakewebbbb.vercel.app/news/3

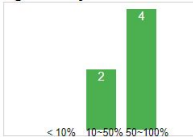
Photo with Donald Trump and US flag

The White House has swiftly dismissed recent rumors suggesting that Vice President Harris has an alcohol addiction, calling the claims "entirely baseless" and "fabricated." The rumors, which originated on social media and various online forums, have garnered attention in recent days, despite the White House's efforts to support the allegations.

A spokesperson for the vice president addressed the rumors directly, stating, "Vice President Harris is fully committed to her responsibilities and her health. These rumors are not only false but represent a clear attempt to smear her character. We urge the public to be cautious of misinformation campaigns."

News Analysis Result
Below is the result of deepfake images and video detection

Figure Analysis



Detection Range	Count
< 10%	0
10-50%	2
50-100%	4

Video Analysis

There is no video in this news.

Article Summarize

Does the information given helps you ?

Fake: 99.81 %

Federal judge rejects Trump's bid to delay release of special counsel documents in 2020 election subversion case

<https://fakecnnpolitics.vercel.app/news/2>

Thank you!