

# Google Serper API

## Contents

- As part of a Self Ask With Search Chain

This notebook goes over how to use the Google Serper component to search the web. First you need to sign up for a free account at [serper.dev](https://serper.dev) and get your api key.

```
import os
os.environ["SERPER_API_KEY"] = ""
```

```
from langchain.utilities import GoogleSerperAPIWrapper
```

```
search = GoogleSerperAPIWrapper()
```

```
search.run("Obama's first name?")
```

```
'Barack Hussein Obama II'
```

## As part of a Self Ask With Search Chain

```
os.environ['OPENAI_API_KEY'] = ""
```

```
from langchain.utilities import GoogleSerperAPIWrapper
from langchain.llms.openai import OpenAI
from langchain.agents import initialize_agent, Tool

llm = OpenAI(temperature=0)
```

[Skip to main content](#)

```
Tool(  
    name="Intermediate Answer",  
    func=search.run,  
    description="useful for when you need to ask with search"  
)  
]  
  
self_ask_with_search = initialize_agent(tools, llm, agent="self-ask-with-search",  
    verbose=True)  
self_ask_with_search.run("What is the hometown of the reigning men's U.S. Open  
champion?")
```

> Entering new AgentExecutor chain...

Yes.

Follow up: Who is the reigning men's U.S. Open champion?

Intermediate answer: Current champions Carlos Alcaraz, 2022 men's singles champion.

Follow up: Where is Carlos Alcaraz from?

Intermediate answer: El Palmar, Spain

So the final answer is: El Palmar, Spain

> Finished chain.

'El Palmar, Spain'