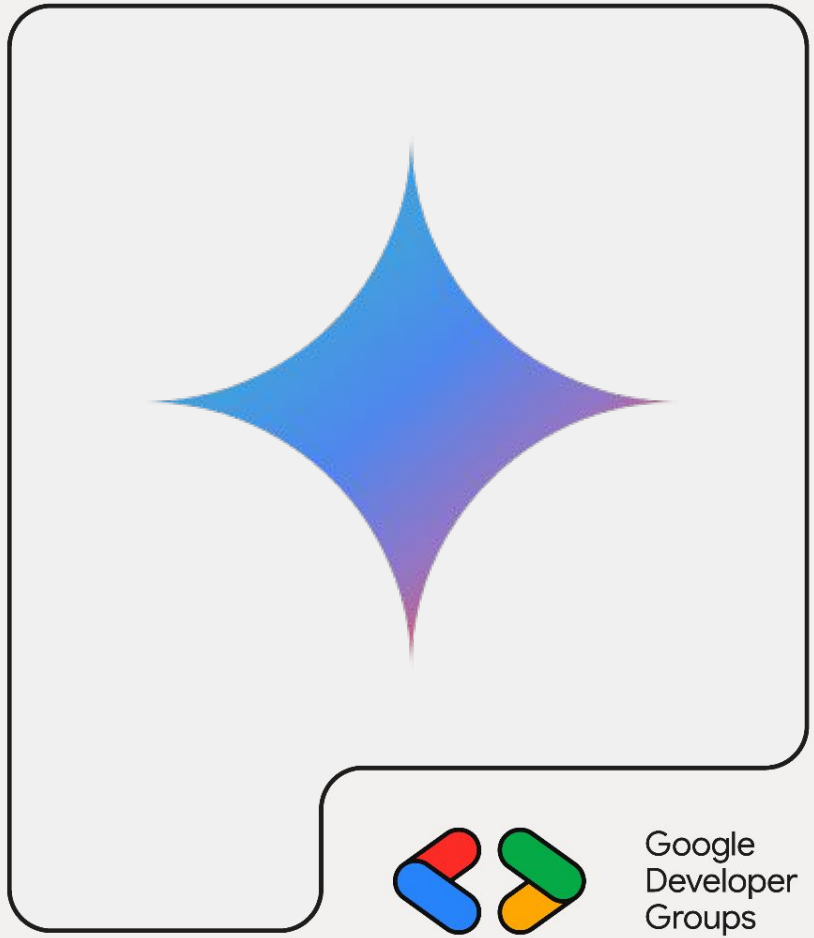
DevFest

Addis

Gemini in Action: Building Smarter Applications

Dagmawi Esayas (aka Dagmawi Babi)



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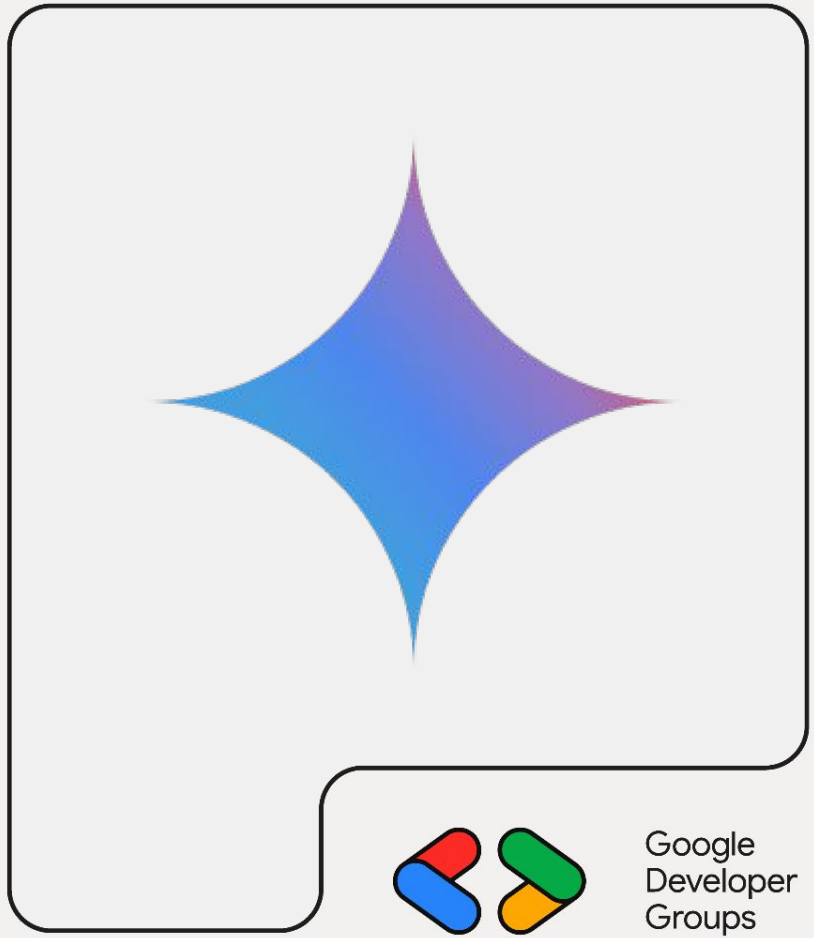


Google Developer Groups

Who is this guy?

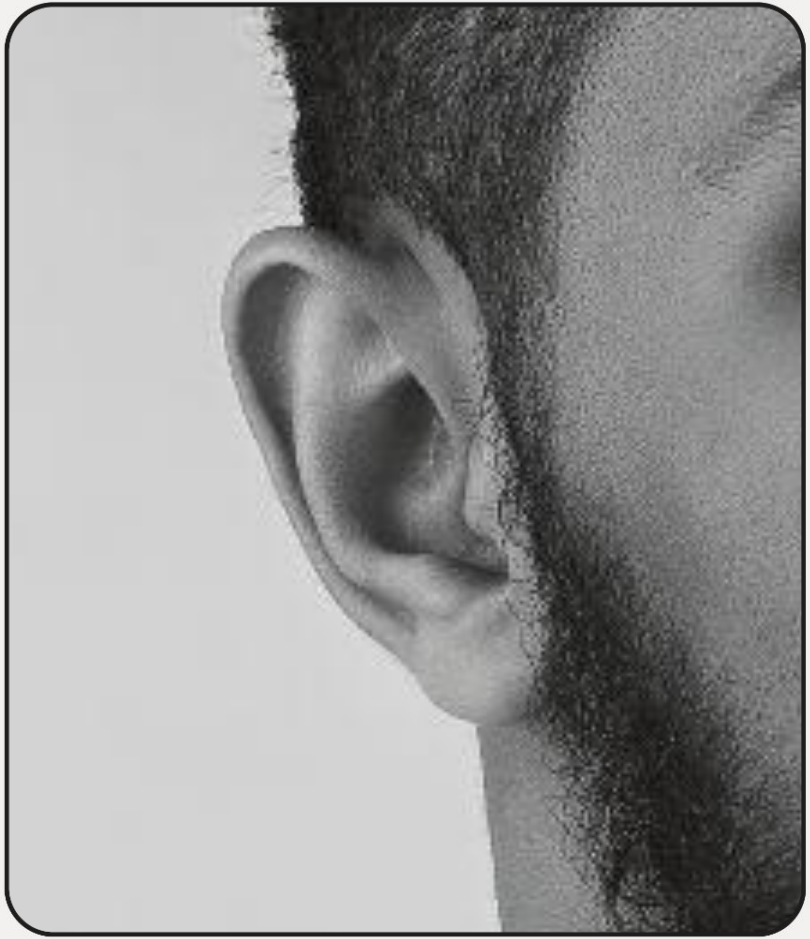
Google Developer Groups

Full Stack Dev
Content Creator
Creative Developer
Podcast Host
Freelancer

also a weirdo at times

Google Developer Groups

Why should I listen to him?



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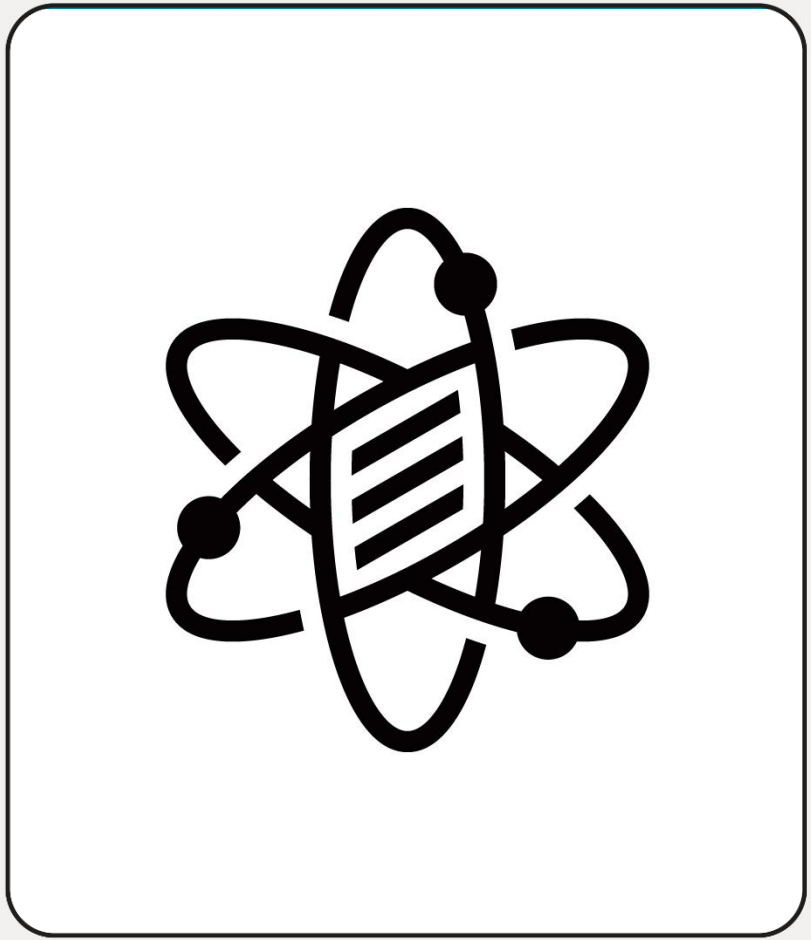
I built ...

ScholArxiv

“One of the best, open source, beautiful, absolutely perfect, just mind blowing research paper exploring apps out there.”

– someone probably said this



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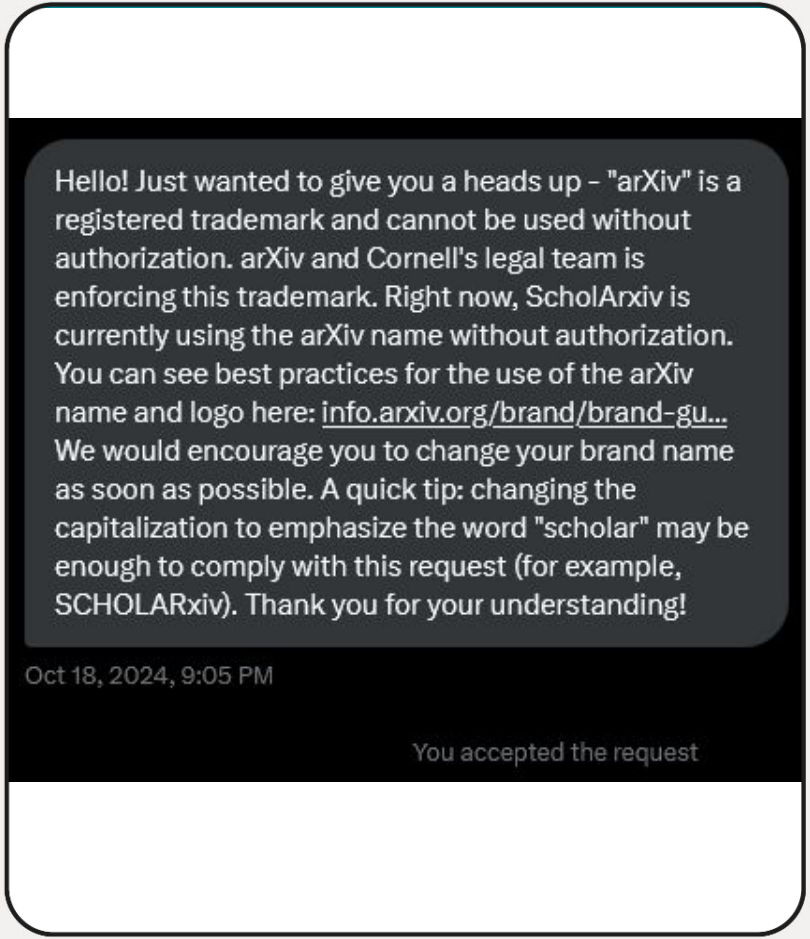
I built ...

ScholArxiv

And

Almost got sued!



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So much eyebrow 🤔

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Addis

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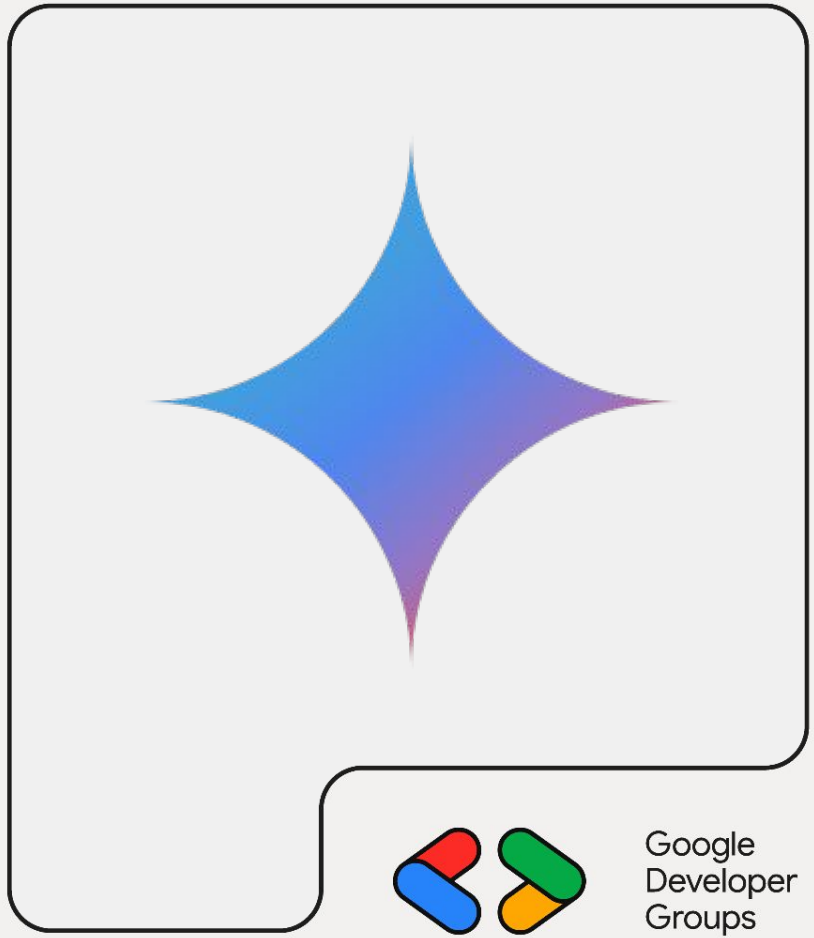

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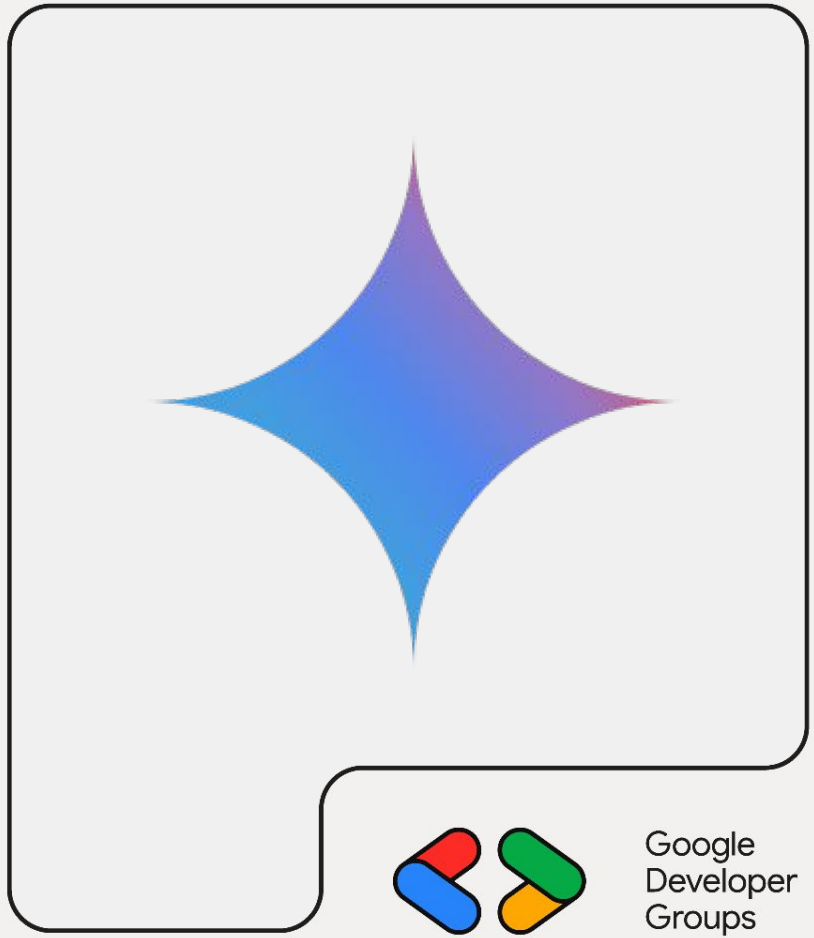

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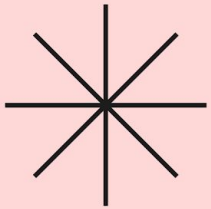
AI
@DevFest

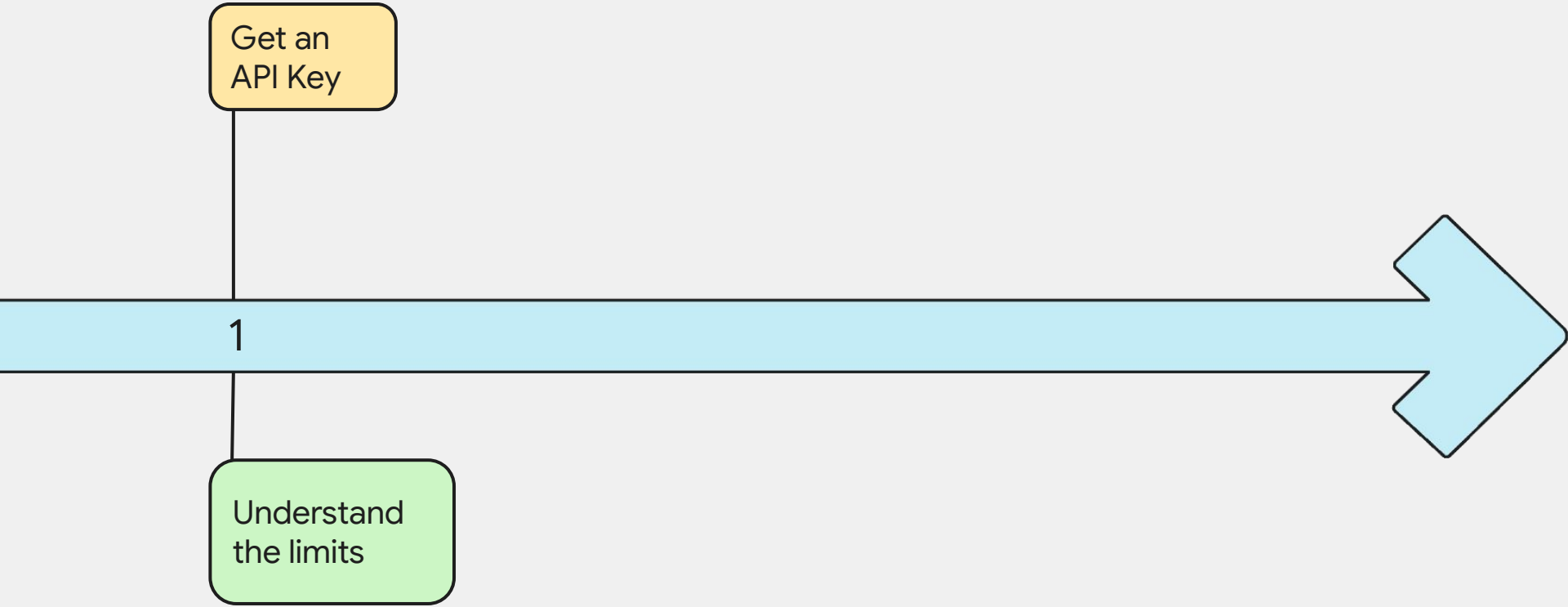
Google
Developer
Groups

How to integrate an LLM into your apps

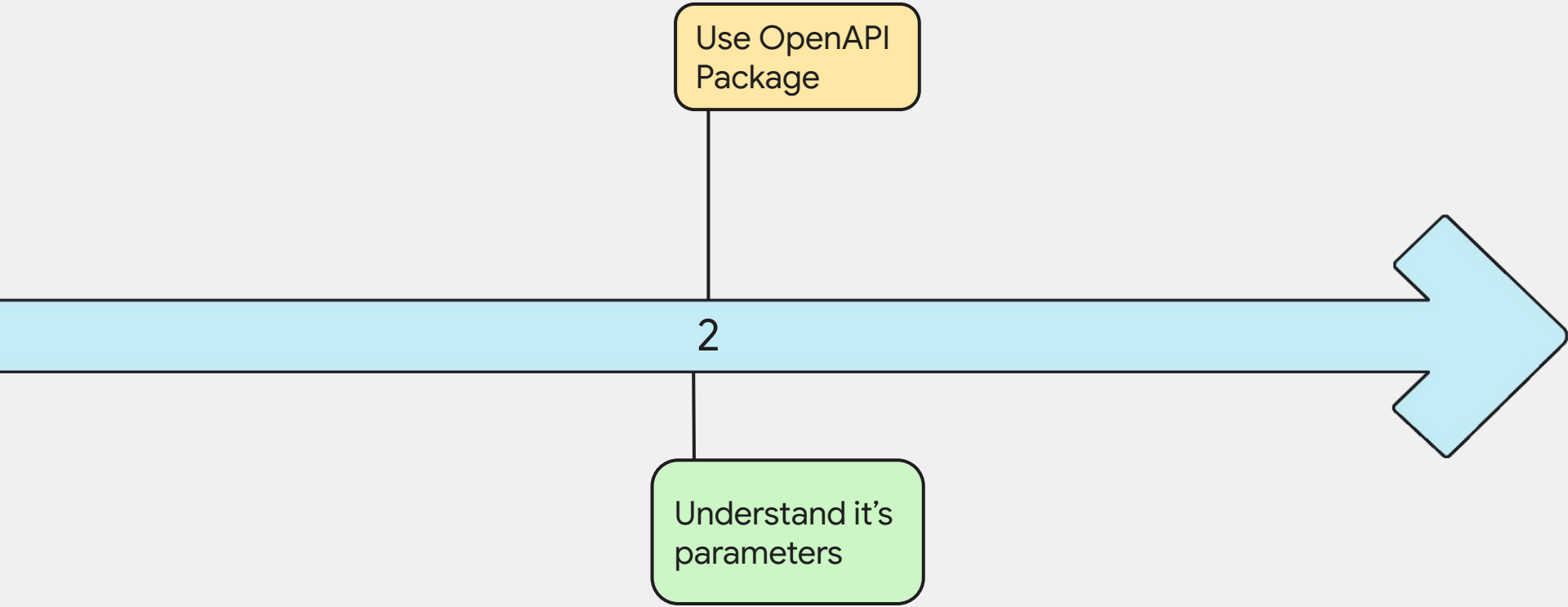
GEMINI – GROK – GPT-4o
Sonnet – LLaMA – Abebech



How to integrate an AI API into your apps?



How to integrate an AI API into your apps?



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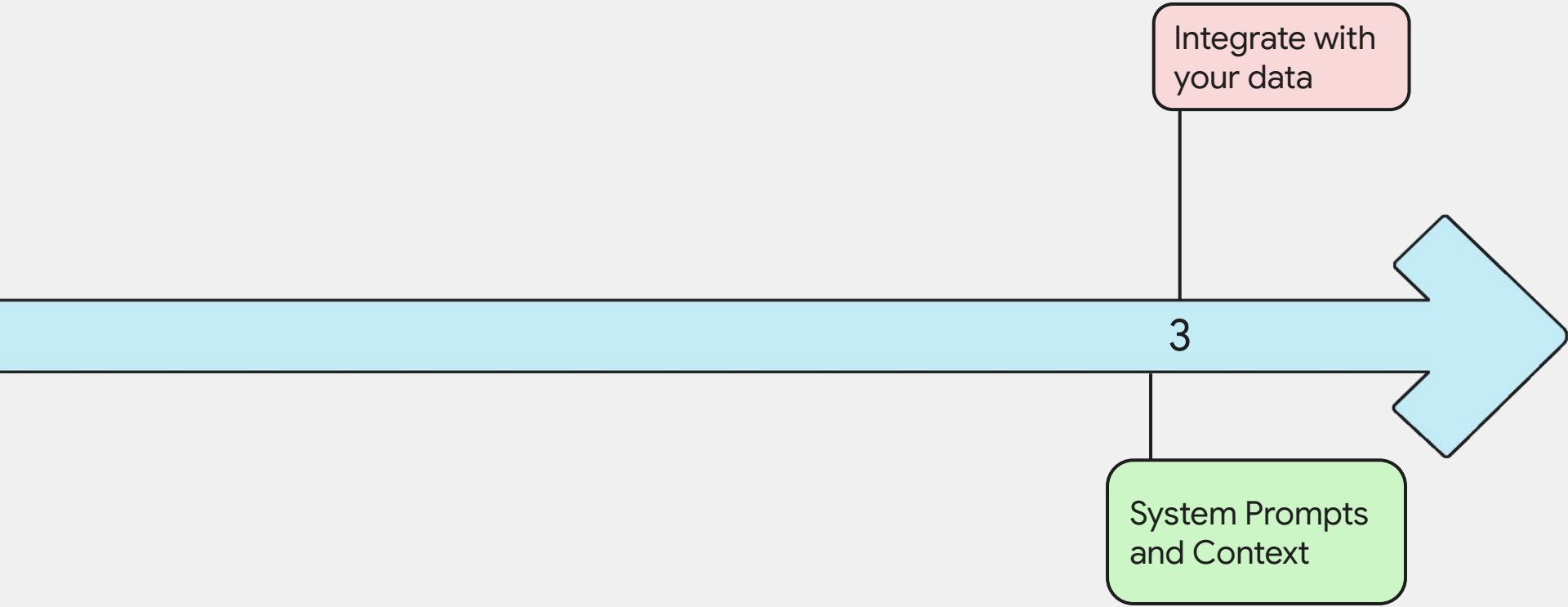
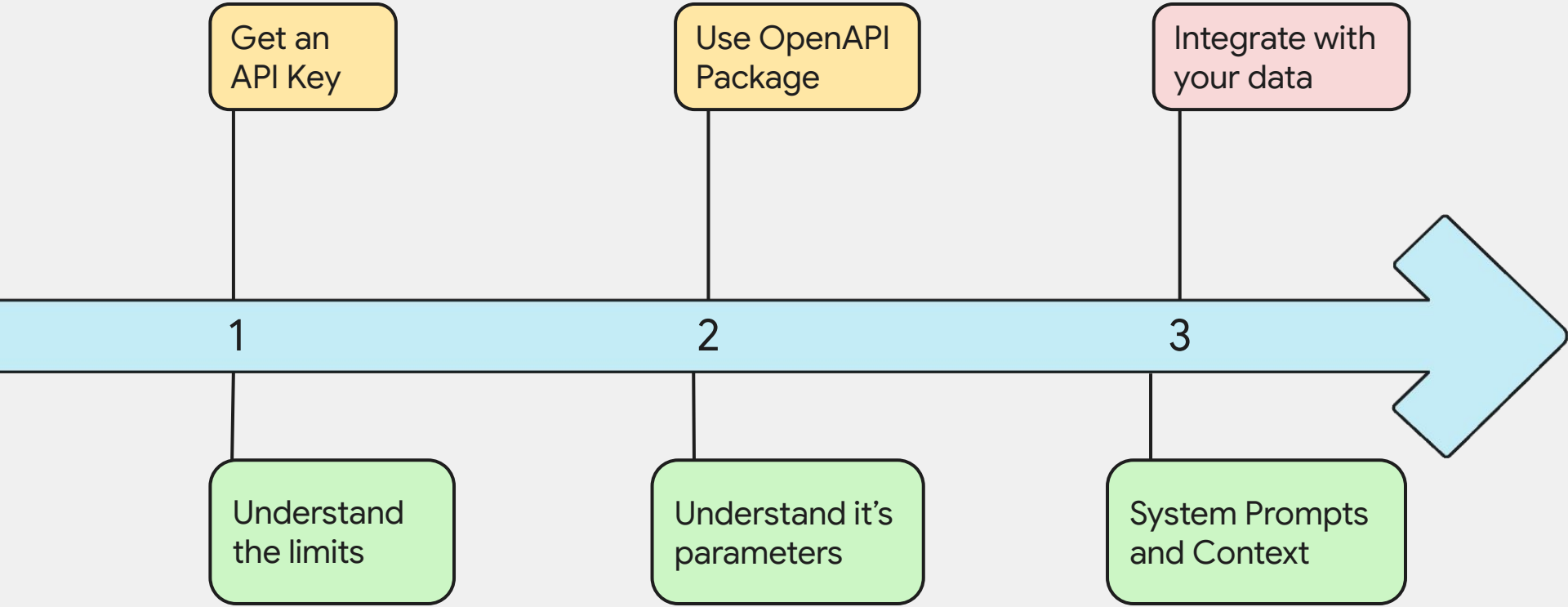


How to integrate an AI API into your apps?



Steps

1. Visit Google's AI Studio (ai.google.dev)
2.
3.
4.
5.

Get started with the Gemini API

Google AI Studio is the fastest way to start building with Gemini, our next generation family of multimodal generative AI models.

Sign in to Google AI Studio

Try the 2 million token context window

Explore what is possible with the 2 million token context window.

Try it out

Get a Gemini API Key

Grab your API key and start integrating Gemini models into your apps.

Get your API key

Prompt Gallery

Visit our prompt gallery for examples of what's possible with Gemini models.

Explore the Gallery

Steps

1. Visit Google's AI Studio (ai.google.dev)
2. Get your API key
3.
4.
5.

Get API key
Create new prompt
New tuned model
My library
Untitled prompt
View all
Prompt Gallery
Developer documentation
Developer forum
Gemini API for Enterprise
Settings
1babidagi@gmail.com

API keys

Cloud projects are subject to the Google Cloud Platform Terms of Service, and use of Gemini API and Google AI Studio is subject to the Gemini API Additional Terms of Service.

Remember to use API keys securely. Don't share or embed them in public code. Use of Gemini API from a billing-enabled project is subject to pay-as-you-go pricing.

Quickly test the API by running a cURL command

API quickstart guide

```
curl \
  -H "Content-Type: application/json" \
  -d "{\"contents\":[{\"parts\":[{\"text\":\"Explain how AI works\"}]}]}" \
  -X POST "https://generativelanguage.googleapis.com/v1beta/models/gemini-1.5-flash-latest:generateContent?key=YOUR_API_KEY"
```

Use code with caution.

Create API key

Your API keys are listed below. You can also view and manage your project and API keys in Google Cloud.

Project number	Project name	API key	Created	Plan
...9101	ScholArxivWeb	...x77o	Oct 5, 2024	Free of charge Set up Billing View usage data
...0621	Alexandria	...X2PU	Aug 24, 2024	Free of charge Set up Billing

Steps

1. Visit Google's AI Studio (ai.google.dev)
2. Get your API key
3. Install OpenAI Package
4.
5.

openai

4.73.1 • Public • Published 4 days ago

Readme | Code Beta | 7 Dependencies | 2,856 Dependents | 211 Versions

OpenAI TypeScript and JavaScript API Library

This library provides convenient access to the OpenAI REST API from TypeScript or JavaScript.

It is generated from our OpenAPI specification with Stainless.

To learn how to use the OpenAI API, check out our API Reference and Documentation.

Installation

```
npm install openai
```

Installation from JSR

```
deno add jsr:@openai/openai
npx jsr add @openai/openai
```

These commands will make the module importable from the `@openai/openai` scope:

You can also import directly from JSR without an install step if you're using the Deno JavaScript runtime:

```
import OpenAI from 'jsr:@openai/openai';
```

Install

```
> npm i openai
```

Repository

github.com/openai/openai-node

Homepage

github.com/openai/openai-node#read...

Weekly Downloads

2,356,933

Version	License
4.73.1	Apache-2.0

Unpacked Size	Total Files
2.74 MB	906

Issues	Pull Requests
69	6

Last publish

4 days ago

Web
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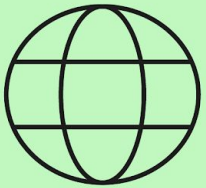
npm i openai



Mobile
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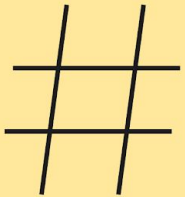
dart pub add openai



Steps

1. Visit Google's AI Studio (ai.google.dev)
2. Get your API key
3. Install OpenAI Package
4. Understand Limits and Parameters
5.

- Gemini 1.5 Flash →
- Gemini 1.5 Flash-8B
- Gemini 1.5 Pro
- Gemini 1.0 Pro
- Text Embedding 004

Gemini 1.5 Flash AVAILABLE NOW

Our fastest multimodal model with great performance for diverse, repetitive tasks and a 1 million context window. Now generally available for production use.

Free of charge

The Gemini API "free tier" is offered through the API service with lower rate limits for testing purposes. Google AI Studio usage is completely free in all available countries.

RATE LIMITS	15 RPM (requests per minute) 1 million TPM (tokens per minute) 1,500 RPD (requests per day)
INPUT PRICING	Free of charge
OUTPUT PRICING	Free of charge
CONTEXT CACHING	Free of charge, up to 1 million tokens of storage per hour
TUNING PRICE	Input/output prices are the same for tuned models. Tuning service is free of charge.
GROUNDING WITH GOOGLE SEARCH	Not available

Steps

1. Visit Google's AI Studio (ai.google.dev)
2. Get your API key
3. Install OpenAI Package
4. Understand Limits and Parameters
5. Dagm is so cool

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Demo time :)

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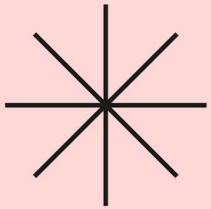
What is the world doing with LLMs right now?

Rabbit R1



The Rabbit R1 Dream

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Just in time for this talk I asked them to send me one Rabbit R1

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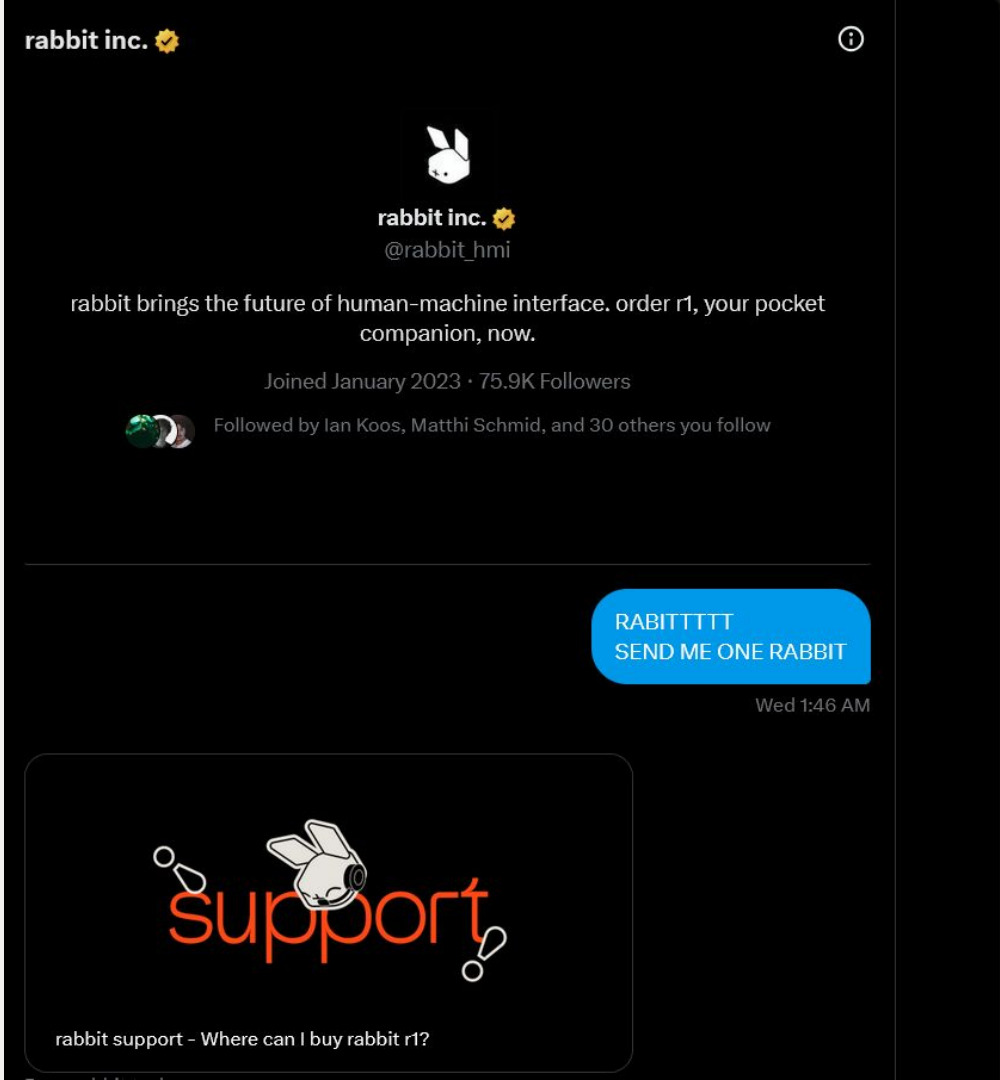

They said no :(

Sorry.

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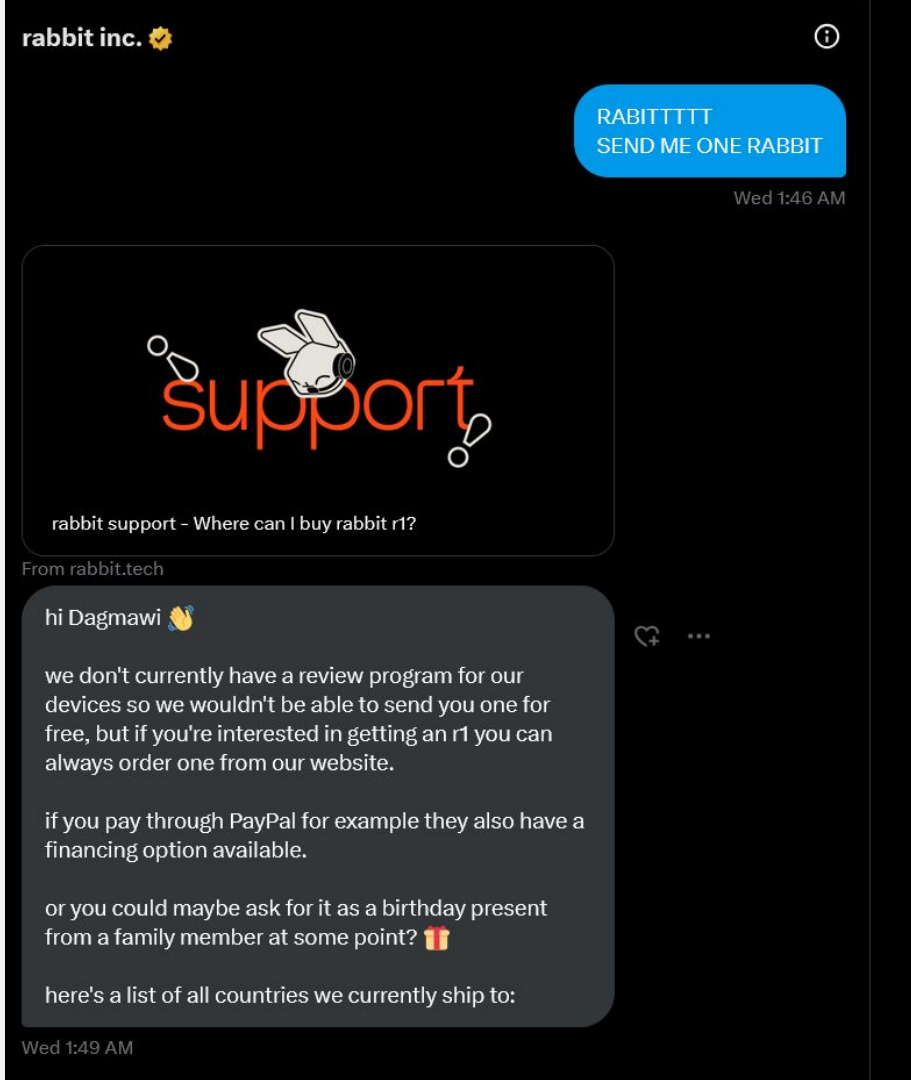

Codenight Weekly Digest: 003

This recap summarizes key discussions,...

NOV 21

Codenight Weekly Digest: 001

This week in CodeNight, the community...

NOV 21

Codenight Weekly Digest #004

Shipping, Scaling, and Side Projects

NOV 24

Most Popular VIEW ALL

Codenight Weekly Digest: 003

NOV 21

Codenight Weekly Digest: 001

NOV 21

Codenight Weekly Digest: 002

NOV 21

DevFest

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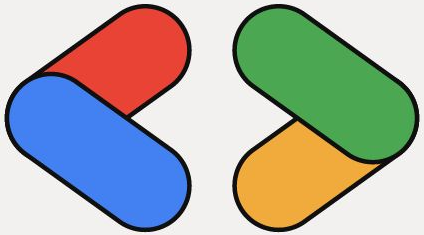

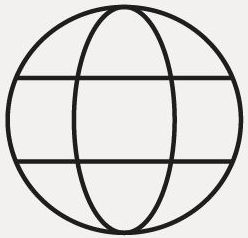

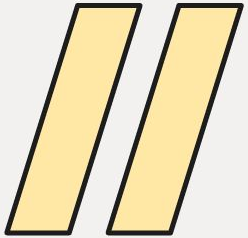

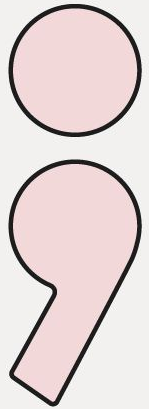

Finally...

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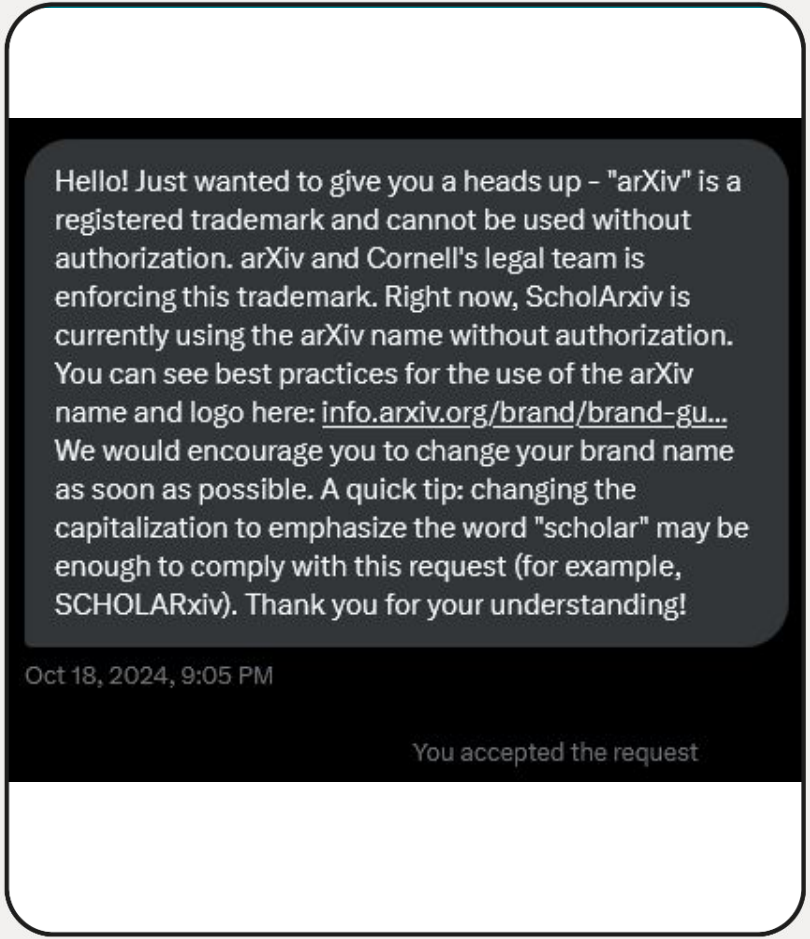
Remember how I built

ScholArxiv

And

Almost got sued!



Sneak Peak :)

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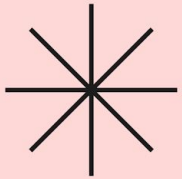
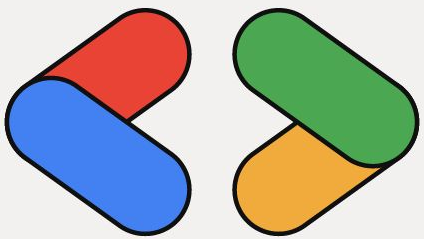
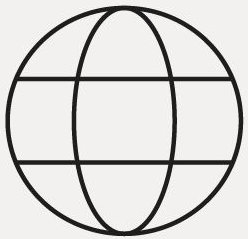
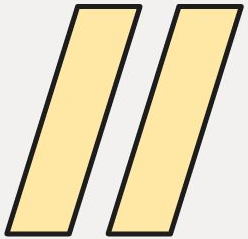
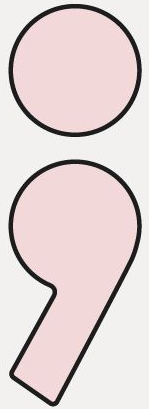


AI
@DevFest

Thank You So Much!
You've been so lovely.



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