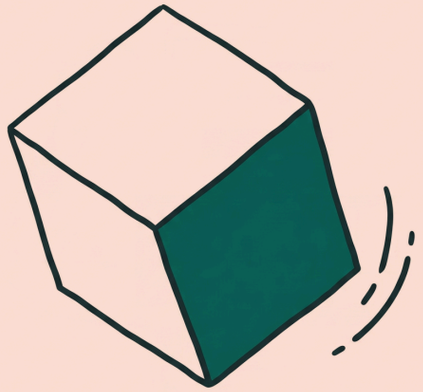
UbuCon India 2026

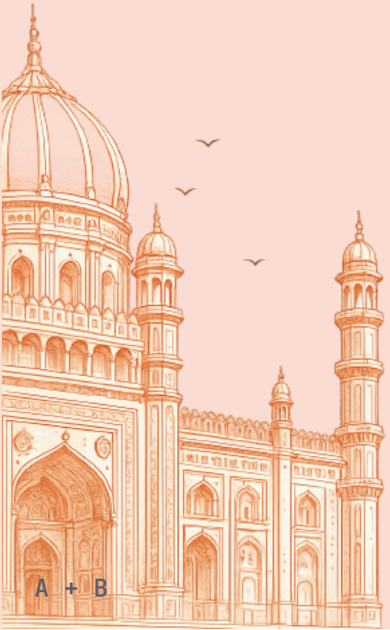
#2026

#UbuConIndia2026

The cube that wouldn't spin

Why WebGPU works (or doesn't) on your Ubuntu desktop







Aishwarya Mathuria

Computer Scientist 2 | Adobe



Nishant Kumar Thakur

Senior Computer Scientist | Adobe

Canonical

Qualcomm

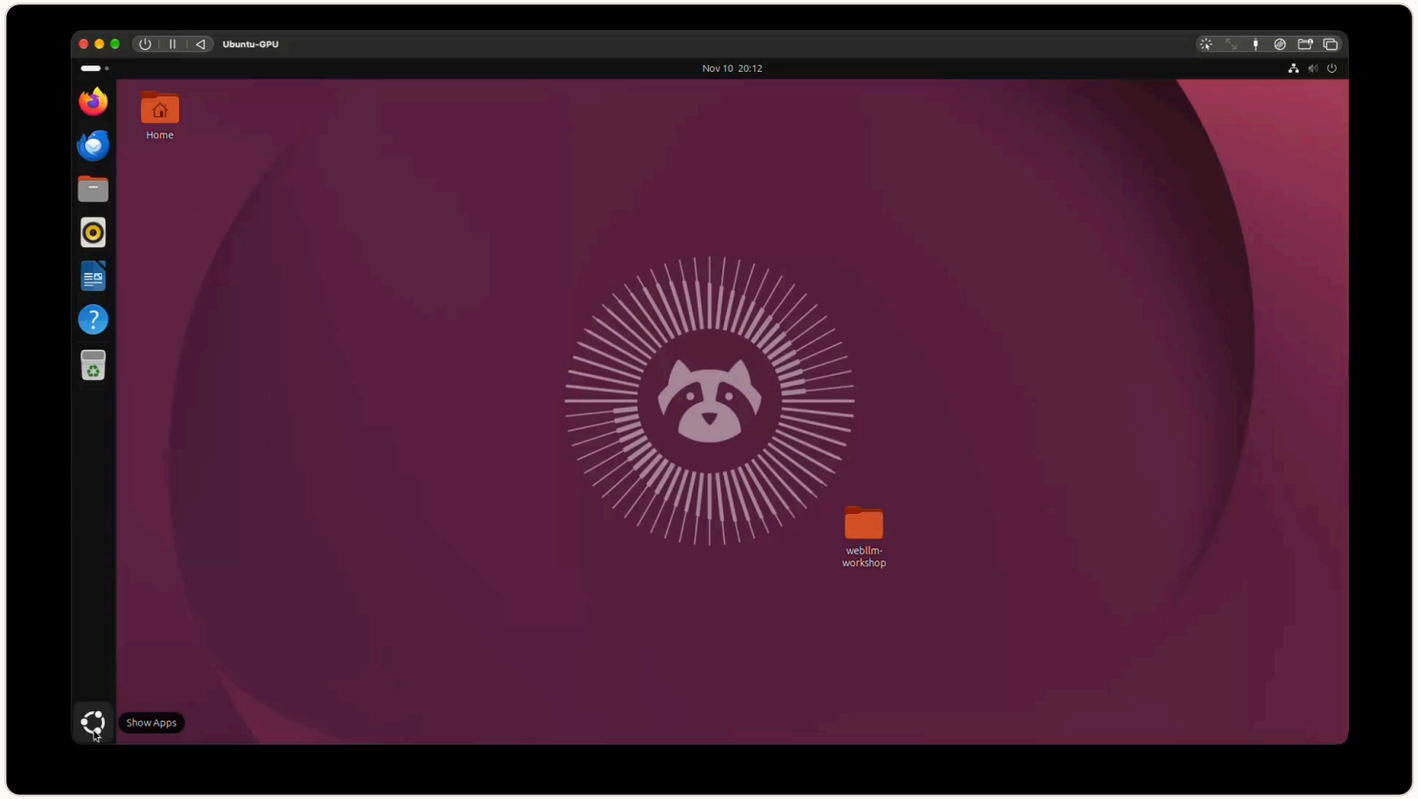
penpot



IT STARTED LIKE THIS

We opened a spinning-cube demo. Nothing spun.





"requestAdapter returned null"

hands up when you spot yourself

Same page. Three laptops. Which one is yours?



Works

spinning 3D cube



"WebGPU not supported"

fails loudly



Works… slowly

fails quietly

You usually can't tell which one you are. Today you will.

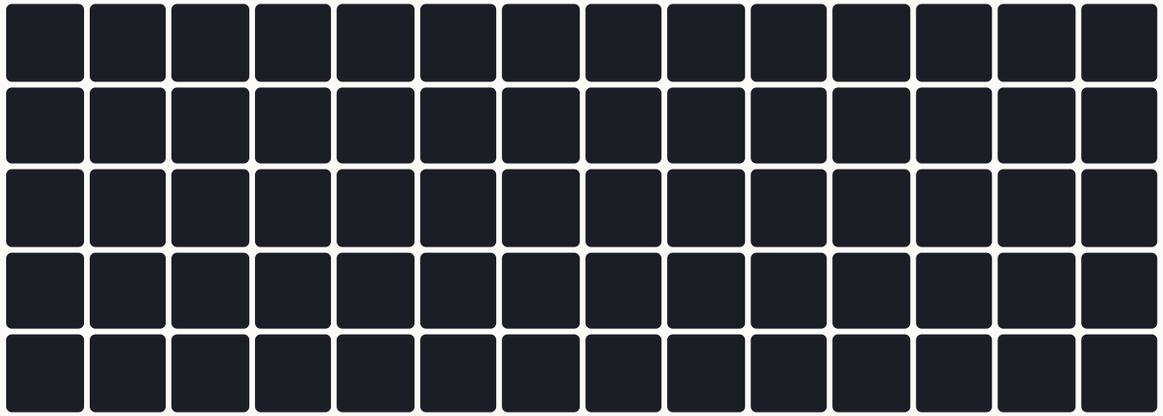
CHAPTER 1

What was that page asking for?

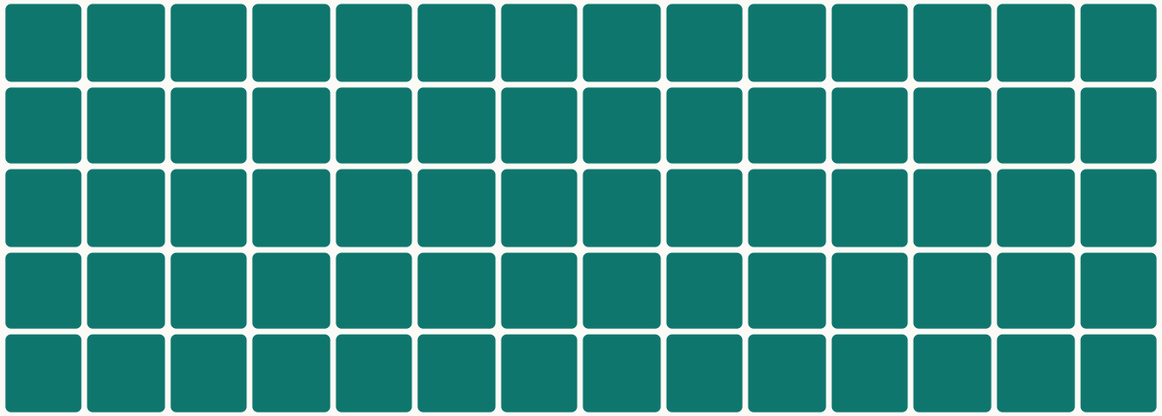
guess first: who wins?

Same job: fill the grid. Who wins?

CPU: a few clever workers



GPU: thousands of tiny ones



What is WebGPU?

Before

A web page could only draw simple things

Heavy work (games, AI) meant installing an app

With WebGPU

A web page can use **your GPU**

3D graphics and AI in a browser tab

No install.

How a web page reaches the GPU

Think of ordering at a restaurant. Somewhere on the way, our cube got lost.



Page
the customer



Browser
the waiter



Vulkan driver
the order system



GPU
the chef



Break a link and some browsers let the CPU "microwave" cook it instead. Slowly. No error.

CHAPTER 2

The tempting way out

Guessing vs checking

☹ Guessing

1. "WebGPU not supported"
2. Google the error
3. Paste a flag from an old forum post
4. Reinstall. Reboot.
5. Still broken. Blame the laptop.

☺ Checking

1. Ask the laptop five questions (60 seconds)
2. Spot the one layer that's off
3. Fix that one thing, not everything

CHAPTER 3

So we asked the laptop

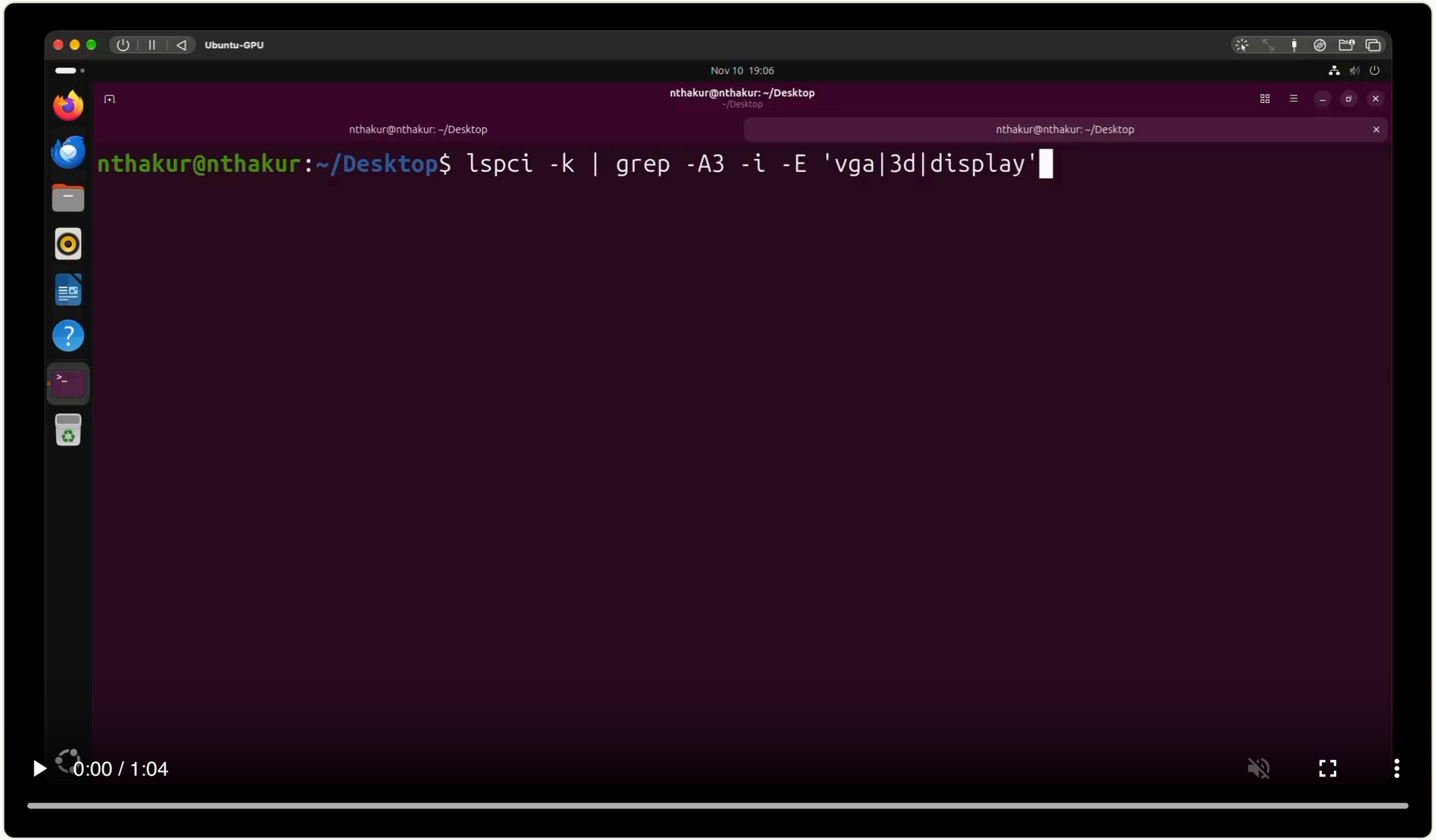
how many have you run before?

Five questions to ask your laptop

1	`lspci -k`	your GPU
2	`vulkaninfo --summary`	your Vulkan driver
3	`echo $XDG_SESSION_TYPE`	Wayland or X11
4	`snap list | grep -i -E 'firefox|chromium'`	which browsers
5	`firefox --version`	which build

Why it matters: browsers only switch WebGPU on for GPU and browser combinations they've tested.

DEMO 1 · THE LAPTOP ANSWERS



CHAPTER 4 · THE TWIST

We opened a second browser

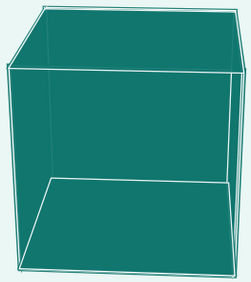
Two browsers. Two answers.

Same laptop. Same GPU. Both browsers are snaps.

Firefox

✓ WebGPU works

The cube spins



Chromium

× "requestAdapter returned null"

Chrome's guide lists a crashing graphics process as one cause. Ours crashes

Google Chrome as a .deb fails the same way, so it's not the snap

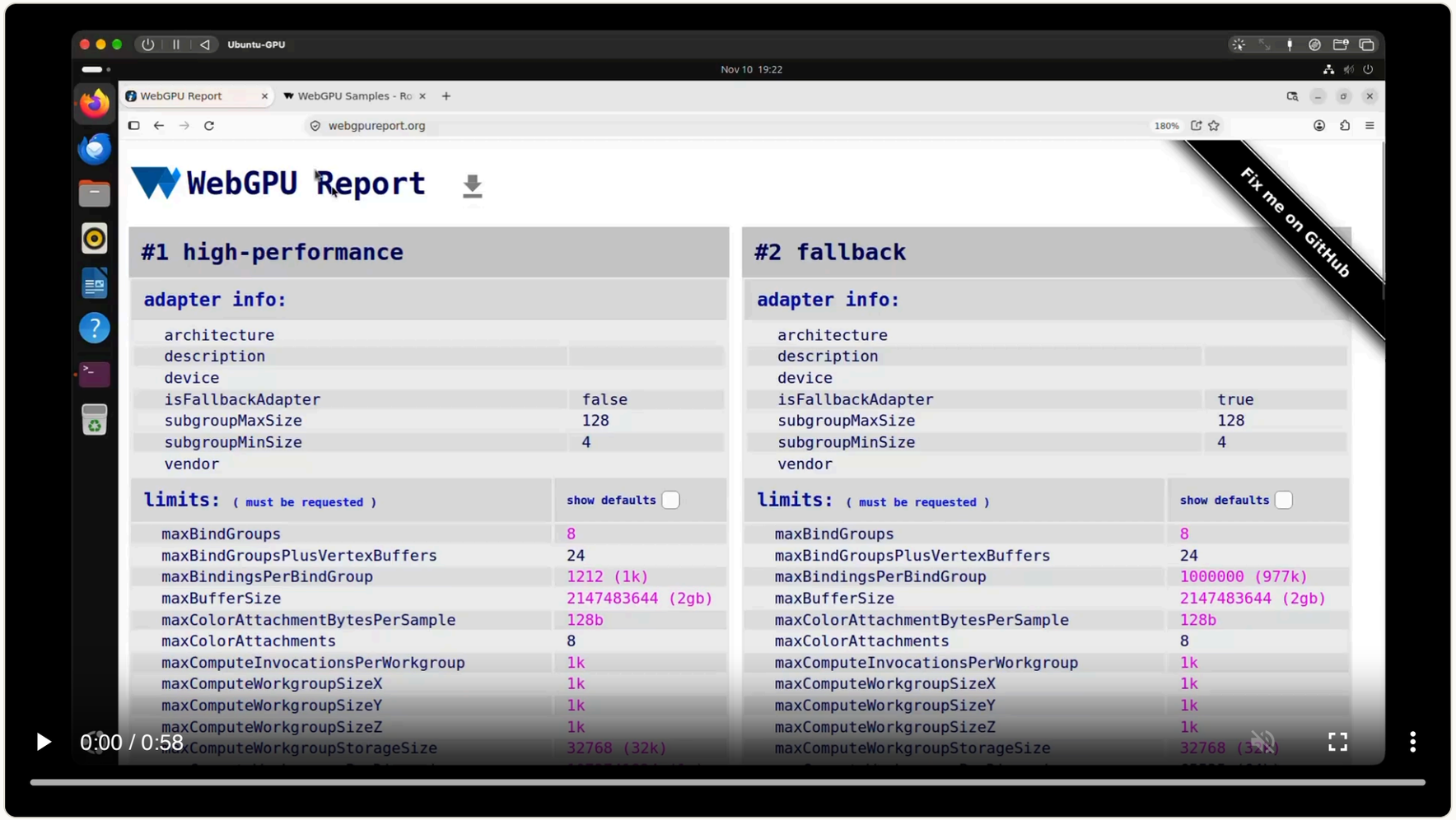
WebGPU uses Vulkan, but the rest of Chromium uses OpenGL. Best guess: that OpenGL ES 3.0 step fails here

Old habit: "my GPU is broken". New habit: "does a second browser work?"

CHAPTER 5

Loaded is not the same as working

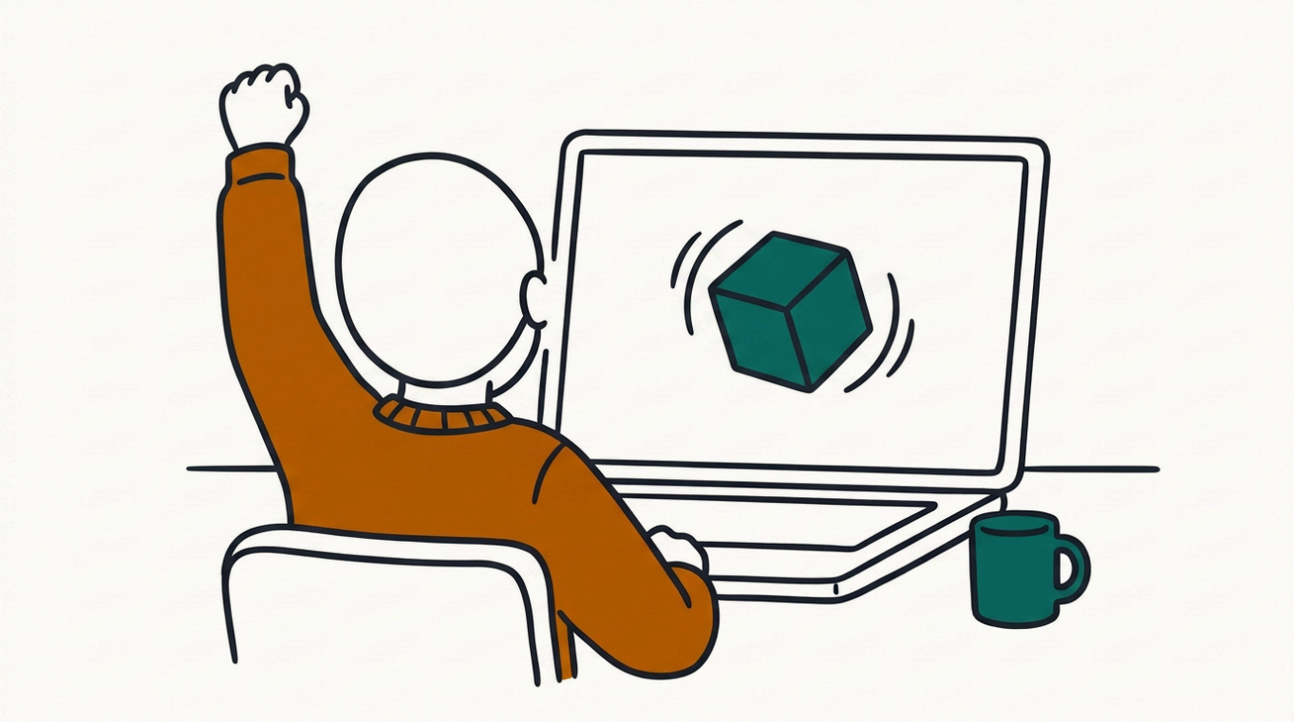
DEMO 2 · IS IT REALLY THE GPU?



Real GPU: `isFallbackAdapter: false` · CPU pretending: `true`

EPILOGUE

Back to the cube that wouldn't spin



In Firefox, it spins. Chromium is still an open case.

Stop guessing. Start checking.

Old you → new you

"My laptop is slow."	→	**Which layer? Run the 5 commands.**
Paste random flags	→	**Find the layer that's off first.**
"It loads, so it works."	→	**Check `isFallbackAdapter`.**
"This browser fails, so my GPU is broken."	→	**Try a second browser first.**









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