

Before I start, Passkeys?

Sign in

Sign in

Sign in

Use passkey?



ben@foo.com



Welcome, Ben!

ben@foo.com



Hello, I'm Ben

 not a security expert

Work

→ Oxford

Agency projects, community/conferences, contracting

→ Oxa

Visualisation libs, web tools, map tech

→ Wayve

Experiment orchestration, onboard experience & services, offboard access & tools

2025

- Left Wayve
- Moved to Dublin 🎉
- Taking some time off
- Finding out about the tech scene 🙌
- Side projects

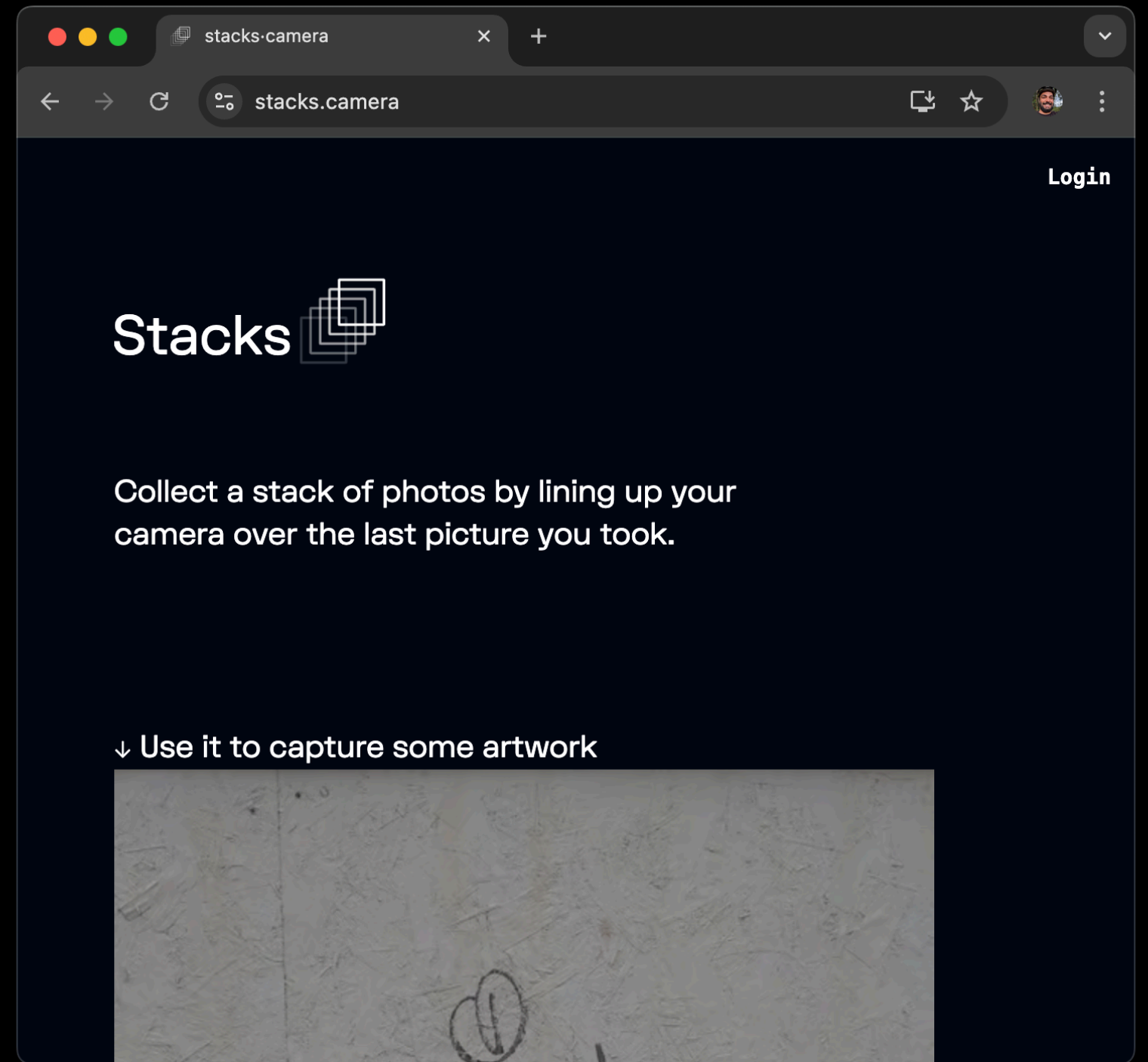
side project #1

stacks.camera

Collaboratively collect a series
of lined-up pictures

Why

- I like the idea!
- Experiment with things
- Ship something



stacks.camera

Quick demo

1. [logged out]
2. Landing page
3. User page
4. Viewing a stack
5. Login (with passkey) to add to stack

My auth requirements

- Support public/private access
- Self-contained - avoid external/social login
- Embracing Passkeys 💪

Passkeys

What are they?

- A public/private keypair to authenticate users
- Implemented by the OS¹, potentially utilising secure enclave/TPM/physical keys
- Potential protection against phishing or insecure passwords
- Available to native applications - I'll focus on the web today

¹Or browser, or password manager

Passkeys

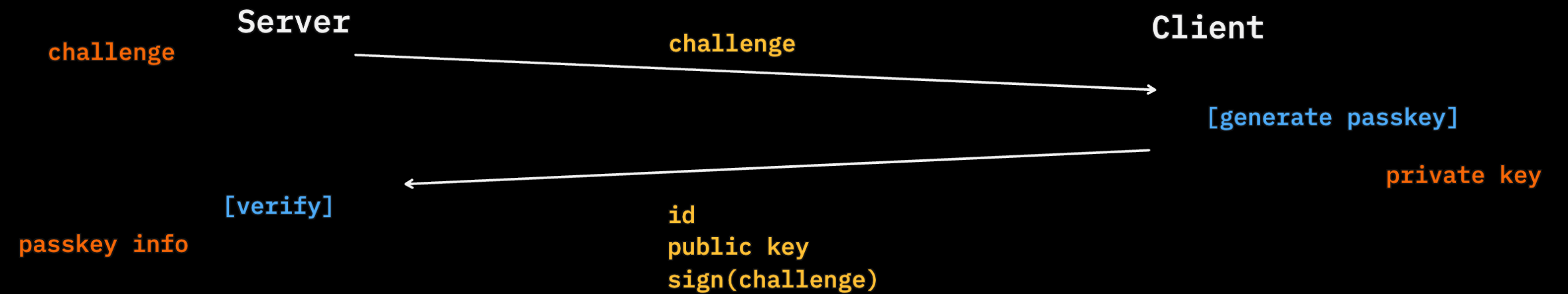
What I like about them

- Secure by design - helps against phishing & passwords.txt
- Self contained & offline-ish potential
- Feels right for user experience

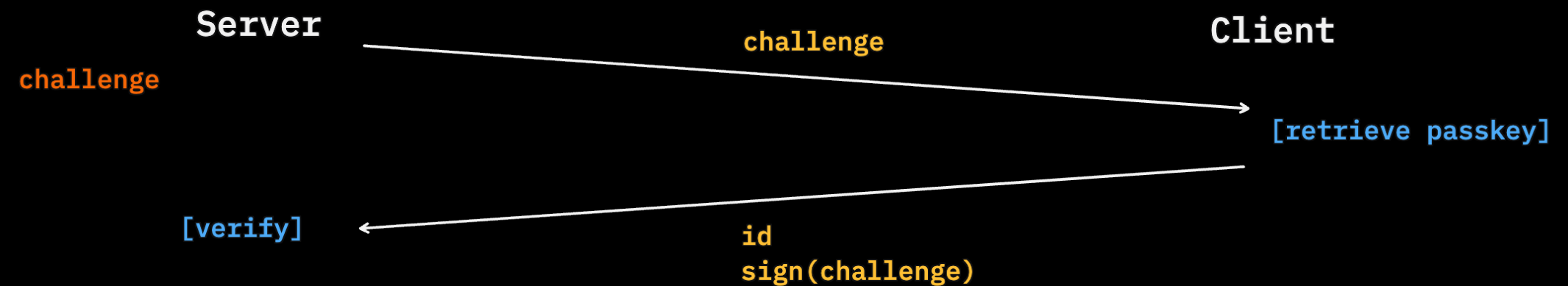
Passkeys

How they work

Registration



Login



Passkeys

How they feel (in JavaScript)

Part of [Credential Management API](#):

```
navigator.credentials.create({...}  
navigator.credentials.get({...}
```

→ benjaminbenben.com/dubsec

demo:

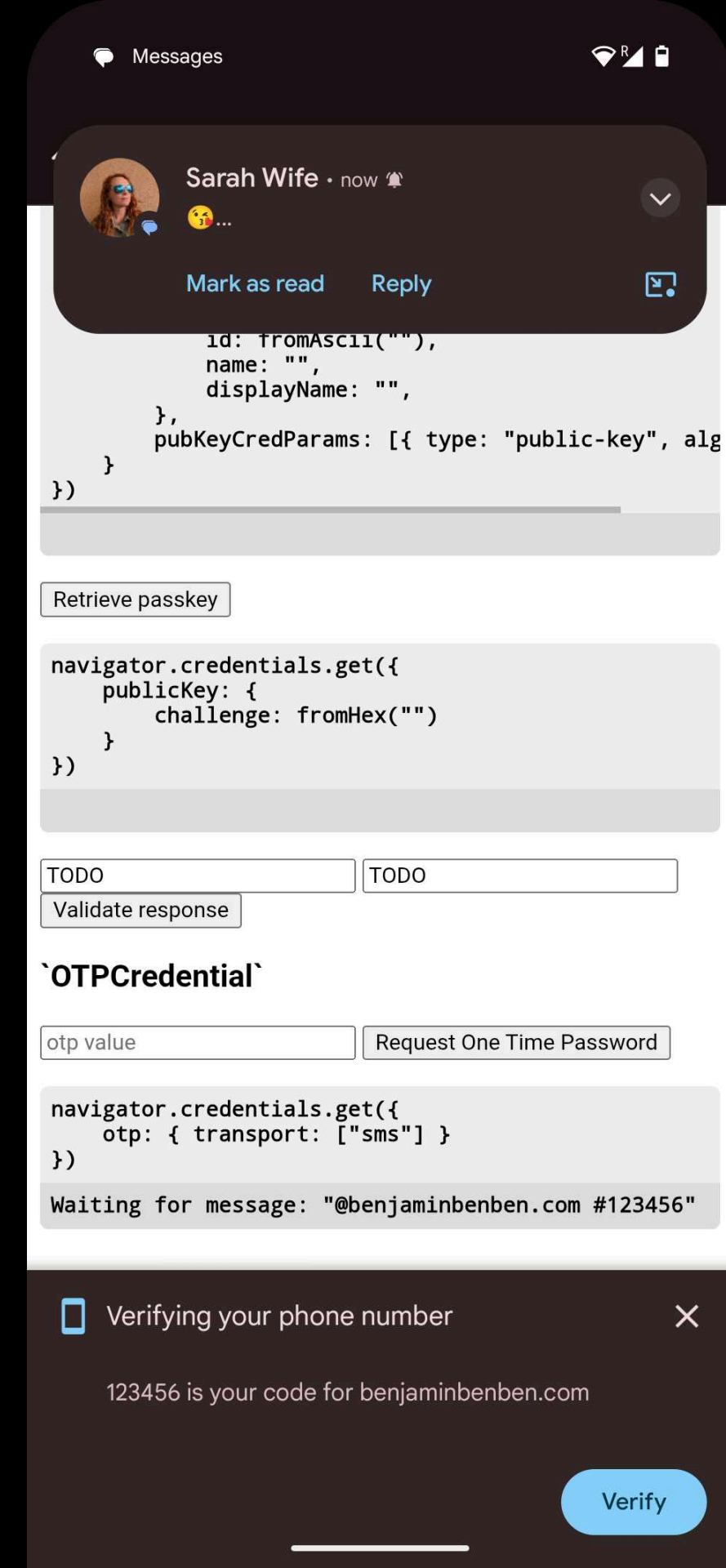
- creating / retrieving a passkey
- 1pass vs chrome vs native
- data - flags user presence

Bonus

Other web platform features

- more navigator.credentials
 - Password, OTP / social
- window.crypto features
 - random values/uuids/etc
 - digest/hashing
 - key generation

benjaminbenben.com/dubsec



SimpleWebAuthn

→ simplewebauthn.dev

- Handles tricky serialisation & inconsistencies
- Neatly defined registration/verification api schemas
- Lots of edge case & option handling

Passkey-only auth?

In Stacks I used passkeys as the primary auth method

- To experiment / learn
- Idealism - it'd be cool if no-one needed passwords

Things I heard / realised:

- “how do I log in this other device” - passkeys can be portable, but it's not always clear how for the user.
- UX: /login /account /etc pages aren't always necessary
- I still needed a way to contact users

I've just reworked the sign-up/login flow, and it uses a bit of a weird tech, so I'd be keen to know if it works for you?

<https://stacks.camera>

10:30 ✓✓

Janey Foxall

Works beautifully bro. I LOVE that I didn't have to think of another password and can sign in with ma face.

10:34



Passkey-only auth?

My conclusions

- It's doable, passkeys are supported pretty well
 - My new ideal solution; passkeys + OTP
- Well suited to adding to existing account
- Rolling my own auth is fun/interesting for a side project, but I almost certainly shouldn't

Some options

- Clerk
- Auth0
- Better Auth
- Cloudflare zero trust / auth proxies

Thanks!

→ @benfoxall.bsky.social

→ /in/benfoxall

→ stacks.camera (would love any feedback!)