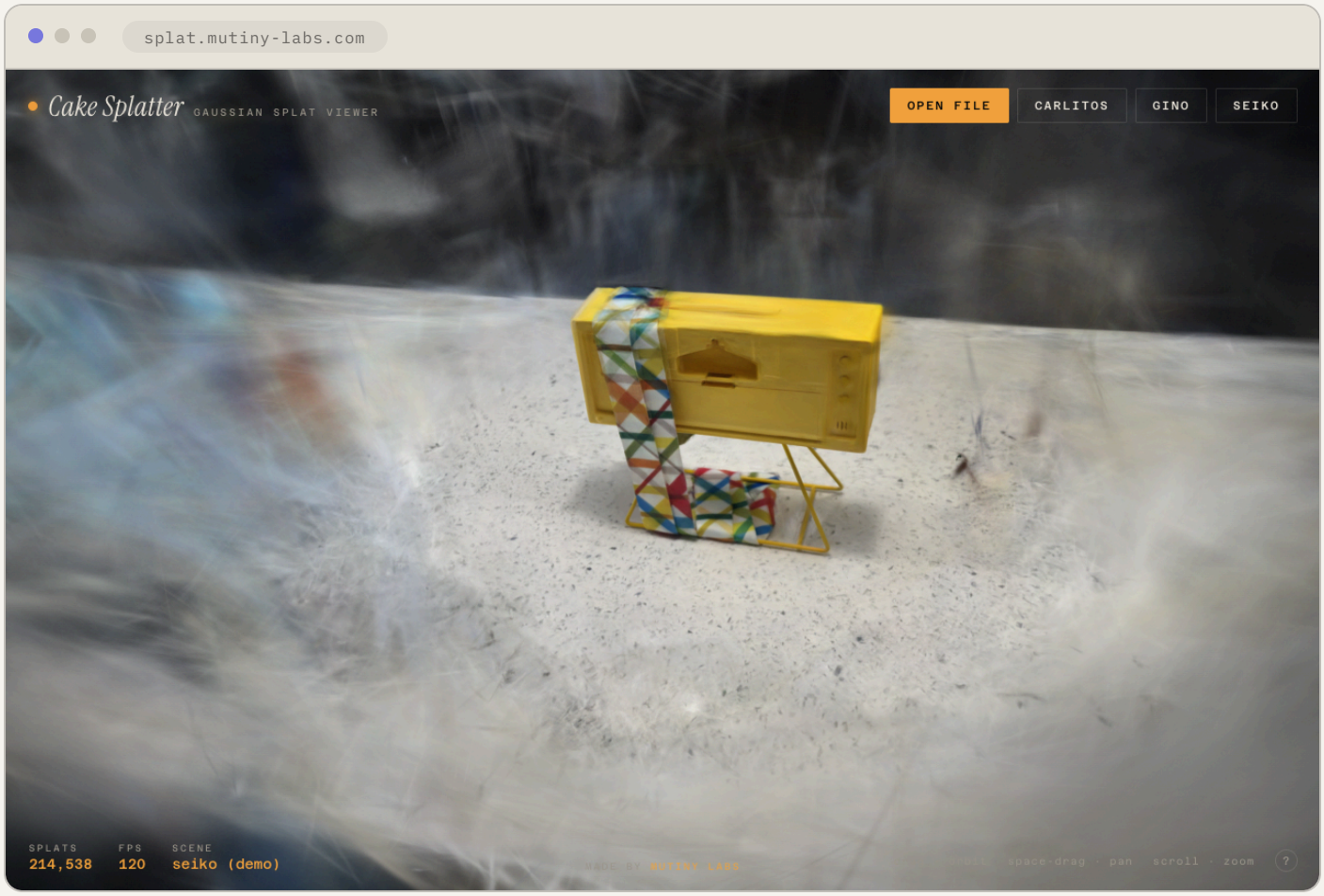
MUTINY LABS R&D

# Cake Splatter

A phone video becomes a photorealistic 3D scene you can publish on your own website the same afternoon.




**<15 min**
PHONE CAPTURE TO PUBLISHED SCENE

**120 fps**
IN-BROWSER VIEWER

**100%**
LOCAL PROCESSING, NO CLOUD

FRONTIER | 3D | PRODUCTS

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## The context

Gaussian splatting is the current frontier of photorealistic 3D capture, and the tooling around it assumes either a cloud subscription, dedicated hardware, or a VFX budget. Mutiny Labs built the entire pipeline in-house to prove the capability and to offer it as a service: your objects and spaces, on your website, in 3D.

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## The challenge

The pipeline had to run entirely on local hardware, because museums and archives cannot upload their collections to someone else's cloud, and it had to be fast enough to iterate: capture, train, review, publish within a single working session. It also had to end in a viewer any visitor can use, on any device, with no plugin or app.

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## How we worked

We read the current research, built the full pipeline in days, and hardened it against real footage: iPhone HDR, motion blur, handheld orbits of difficult objects. Then we productized it: a native app any operator can run, and a viewer any visitor can use. It is live at splat.mutiny-labs.com with demo scenes captured on a phone in a kitchen, because the proof should be one tap away.

CLIENT

Mutiny Labs R&D

SECTOR

Emerging tech

YEAR

2026

LIVE

splat.mutiny-labs.com

BUILT WITH

Gaussian splatting pipeline: structure-from-motion solver plus GPU training on Apple Metal, native macOS application, custom WebGL viewer

> *A phone video becomes a photorealistic 3D scene you can publish on your own website the same afternoon.*

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# What we built

### 01 Capture with a phone

Photos or video from any recent phone; the pipeline scores every frame for sharpness and keeps only the best, and converts iPhone HDR footage correctly.

### 02 Local GPU training

Camera positions solved and millions of gaussians trained on a Mac's own GPU. Client assets never leave the machine.

### 03 Native macOS studio app

Scene library, drag-and-drop ingest, live training console and one-click publish, in a real desktop app.

### 04 A viewer anyone can use

Custom WebGL viewer at 120 fps with auto-framing, keyboard shortcuts, mobile touch and scene deep links.

### 05 Web-ready compression

Published scenes are roughly four times smaller than raw output, streaming into the browser in seconds.

UNDER THE HOOD — Gaussian splatting pipeline: structure-from-motion solver plus GPU training on Apple Metal, native macOS application, custom WebGL viewer

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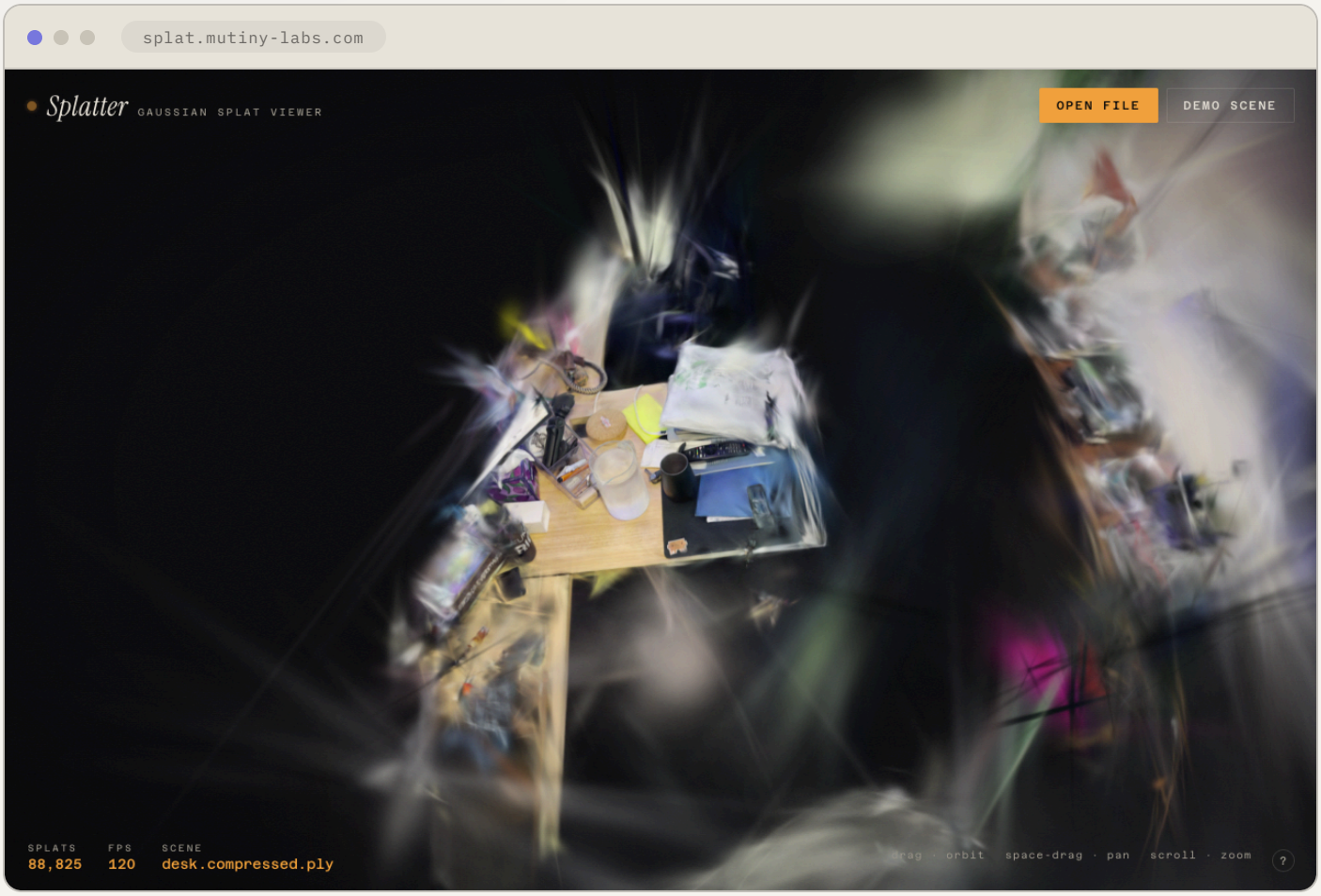
# In the product




A desk scene reconstructed from a 42-second handheld video: photoreal, orbitable, in the browser.

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# What this demonstrates

- Frontier research turned into working product in days
- Privacy-preserving architecture for sensitive collections
- A direct service line for museums, venues, real estate and retail

*Let's build yours.* mutiny-labs.com