### lenskit

Product photography with Al

# What is product photography

To create good looking photos for ads and marketing you usually hire an expensive photographer and a studio.

Or create your own little studio at your home.

These solutions are very limiting





## Lenskit can turn your iphone photos into good looking product photography

- Removes the background from initial image
- Let you control the size and the position of your product
- Generates a background image with AI
- Let you upscale, change aspect ratio, generate variations in different locations

#### What lenskit can do











#### How it's made

- Landing page in framer
- App built with Next.js hosted on Vercel
- Image editor built with Konva.js
- Generation and upscaling with Stability AI
- Background removal is handled by Rembg
- Mask is generated with WebGL shader
- The images are generated with Stable Diffusion inpainting model, starting with the original image and a mask
- Every template location is a prompt string

#### Rate limiting with Redis

To run lenskit on a GPU cluster you would need to rate limit generations, showing a message to the user "service is at full capacity" in case user gets rate limited

You can do this with minimum impact on latency with Redis

```
128 const script = `
129 local key = KEYS[1]
130 local window = ARGV[1]
131
132 local r = redis.call("INCR", key)
133 if r == 1 then
134 -- The first time this key is set, the value will be 1.
135 -- So we only need the expire command once
136 redis.call("PEXPIRE", key, window)
137 end
138
139 return r
```

### How lenskit can be even better

- Use Controlnet to fix the product in place, using only inpainting is not enough
- Fine tune with LoRa using existing product photography (maybe shadows would get better)
- Preview of this method on the right
- Use 3d model instead of image?

