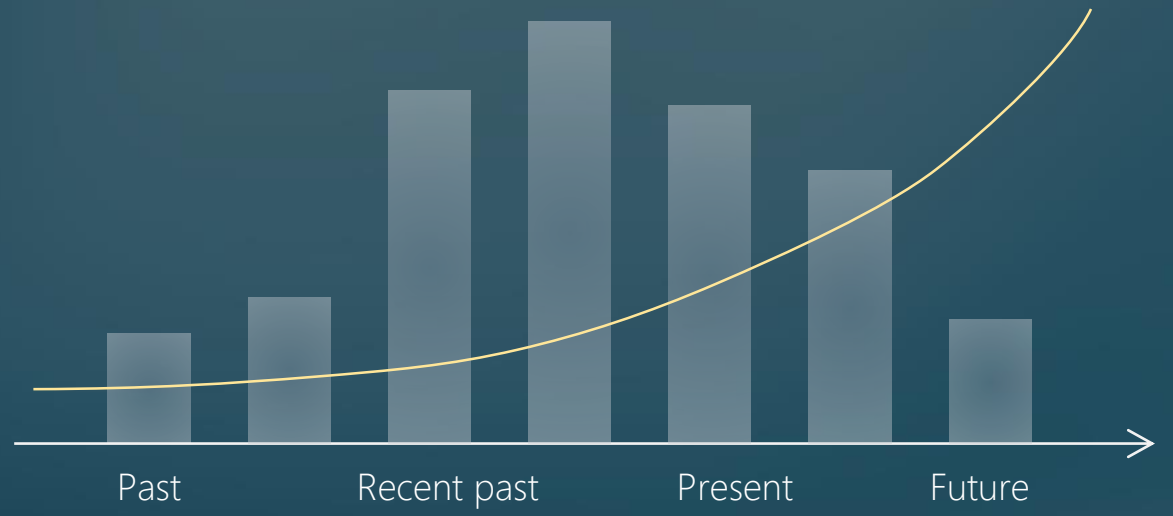
24. hroug
godišnja konferencija

Face Tracking in Augmented and Virtual Reality

Gordan Kreković
CEO, Visage Technologies



Required skills

Technical complexity

Cameras

Navigation

Computer graphics

Stereoscopic rendering

Web technologies

Eye tracking

Comptuer vision

Motion capture

Head-mounted displays

Face tracking

E-commerece integrations

Sensorics

Ambisonics

Haptic technology

Augmentations

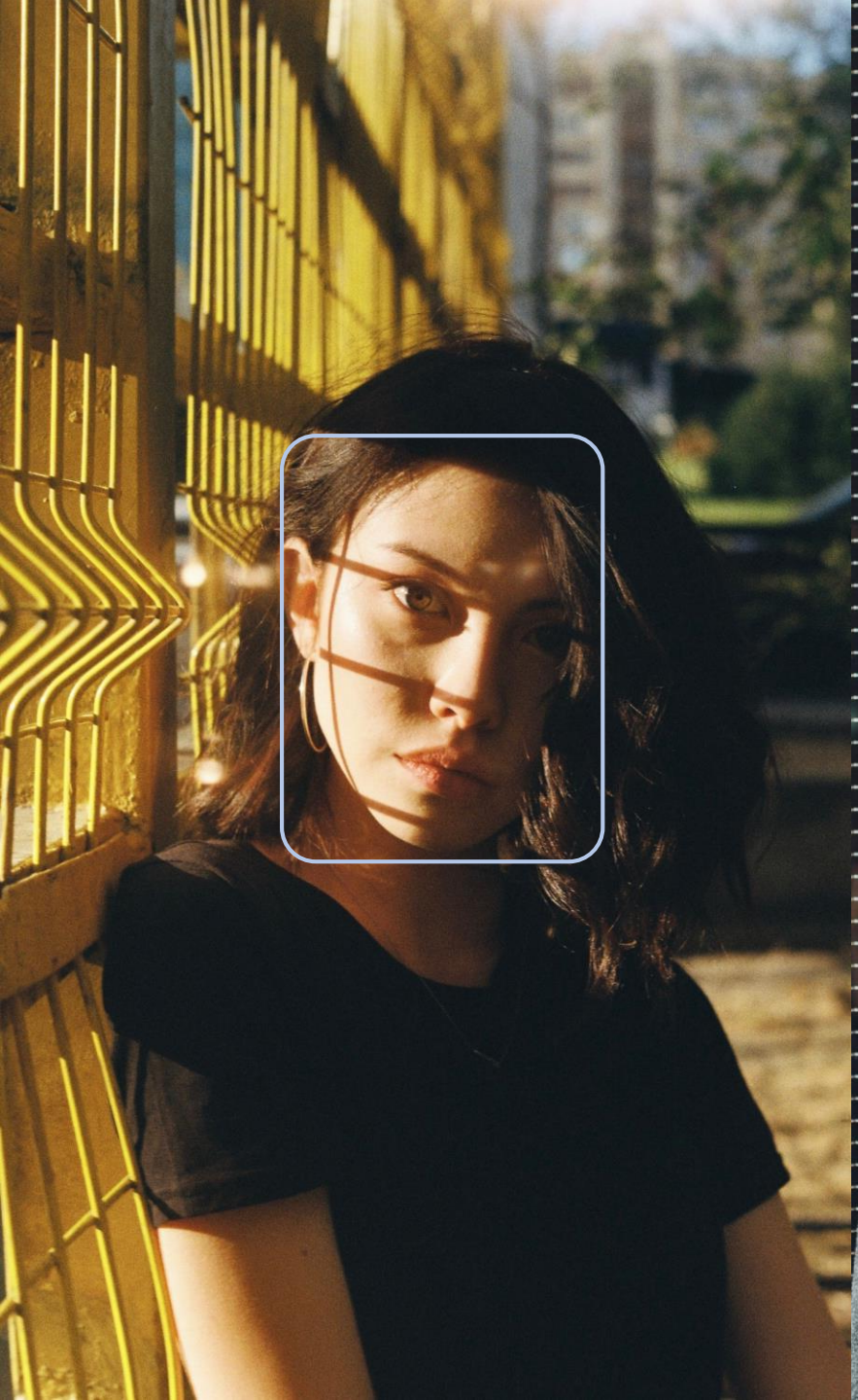
- Makeup
- Glasses
- Jewelry
- Colored lens
- Masks

Modifications

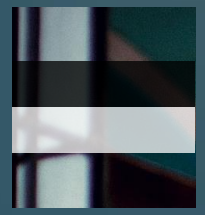
- Jaw contour
- Lip enhance
- Skin texture
- Undereye

Animation

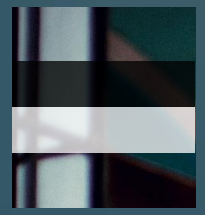
- 3D avatars with realistic facial expressions

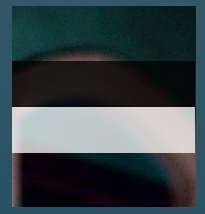


Face detection

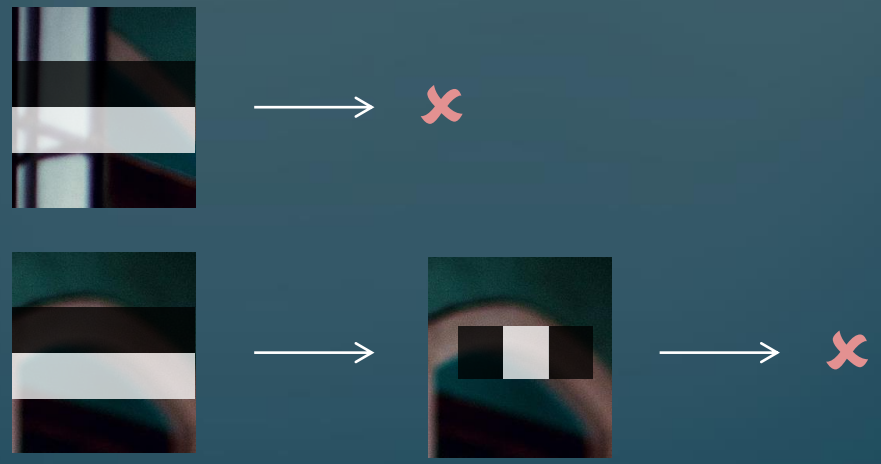


Face detection

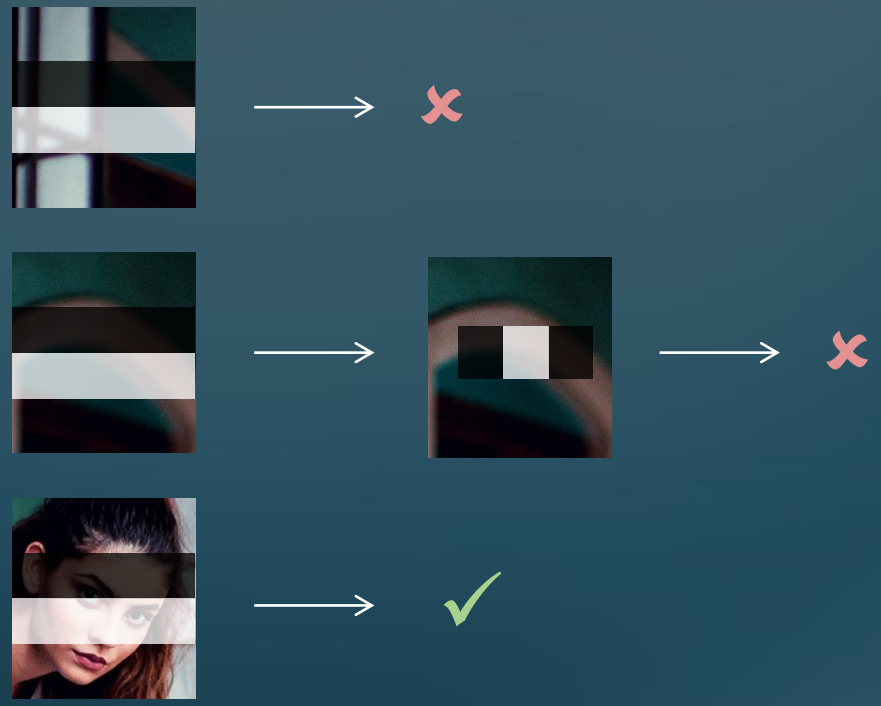




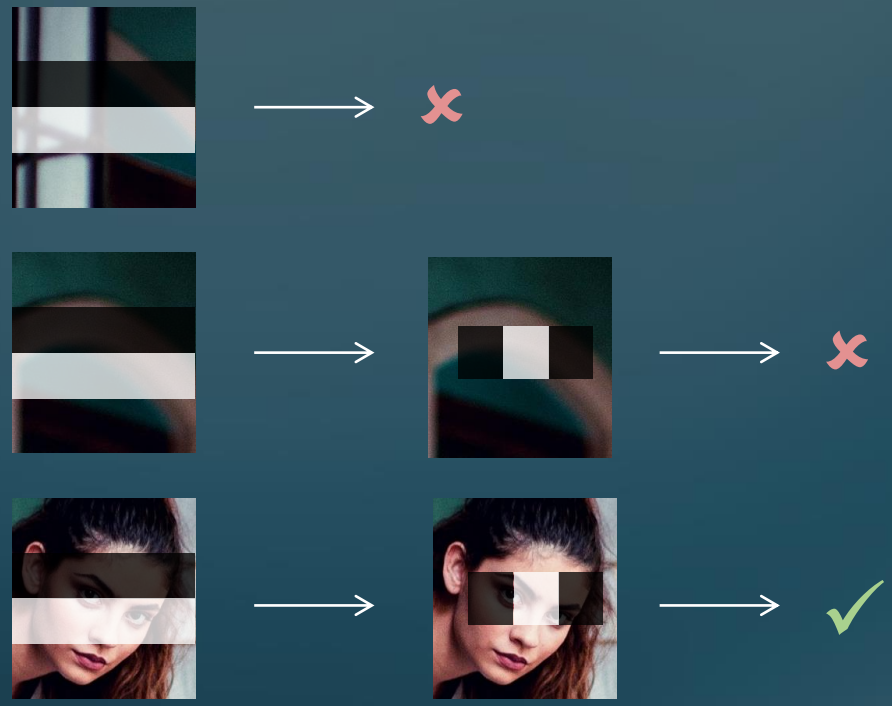
Face detection



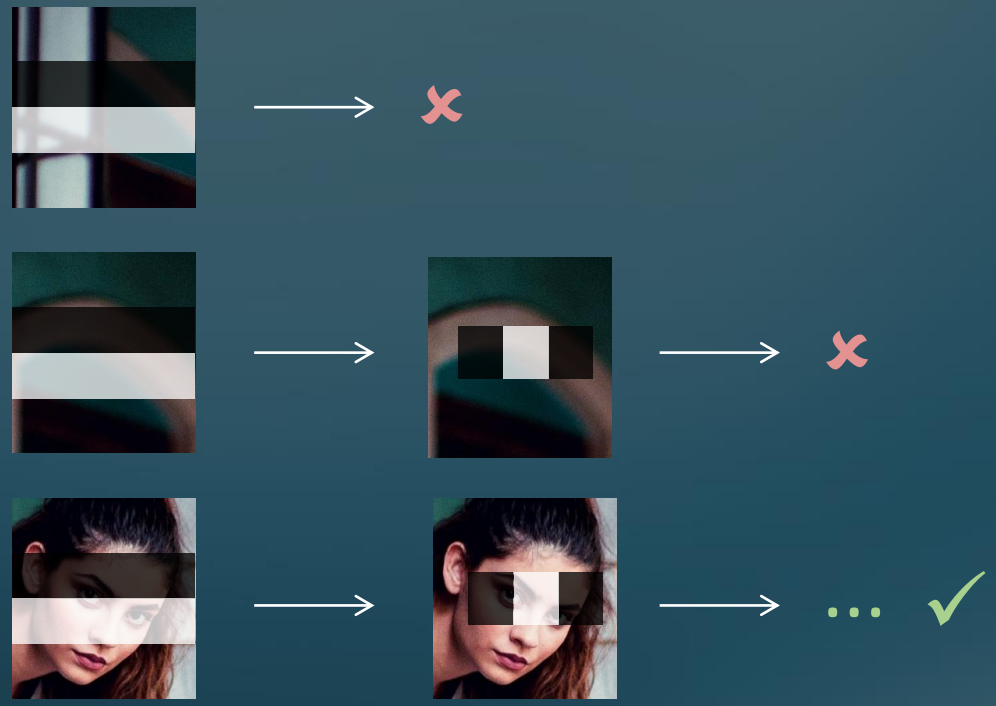
Face detection



Face detection



Face detection

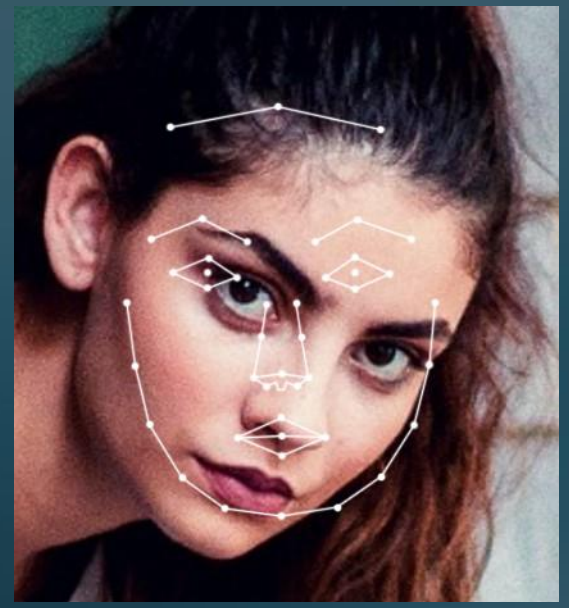


Face alignment

Cascaded Shape Regression

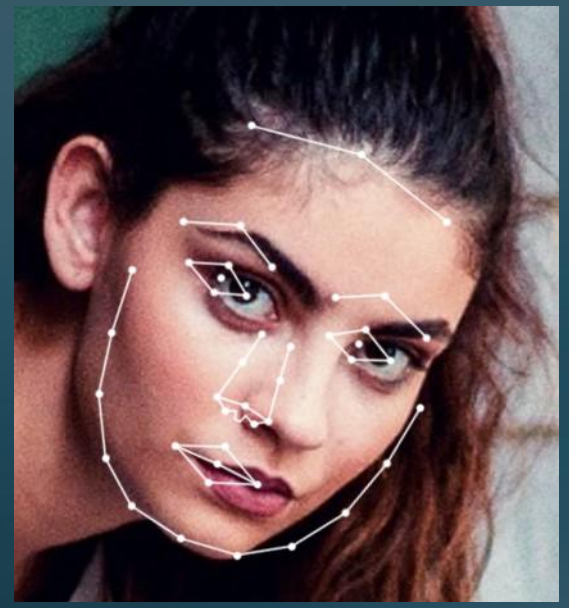
Face alignment

Cascaded Shape Regression



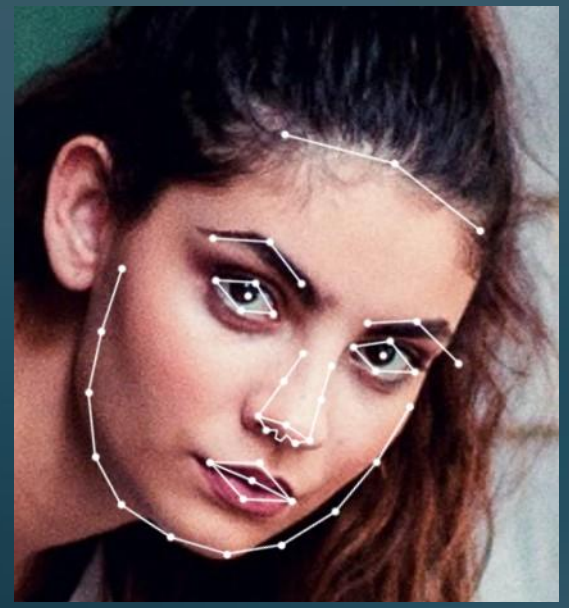
Face alignment

Cascaded Shape Regression



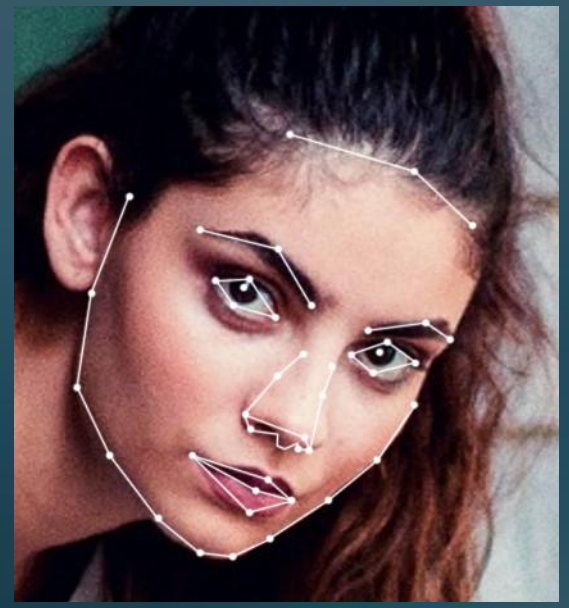
Face alignment

Cascaded Shape Regression



Face alignment

Cascaded Shape Regression

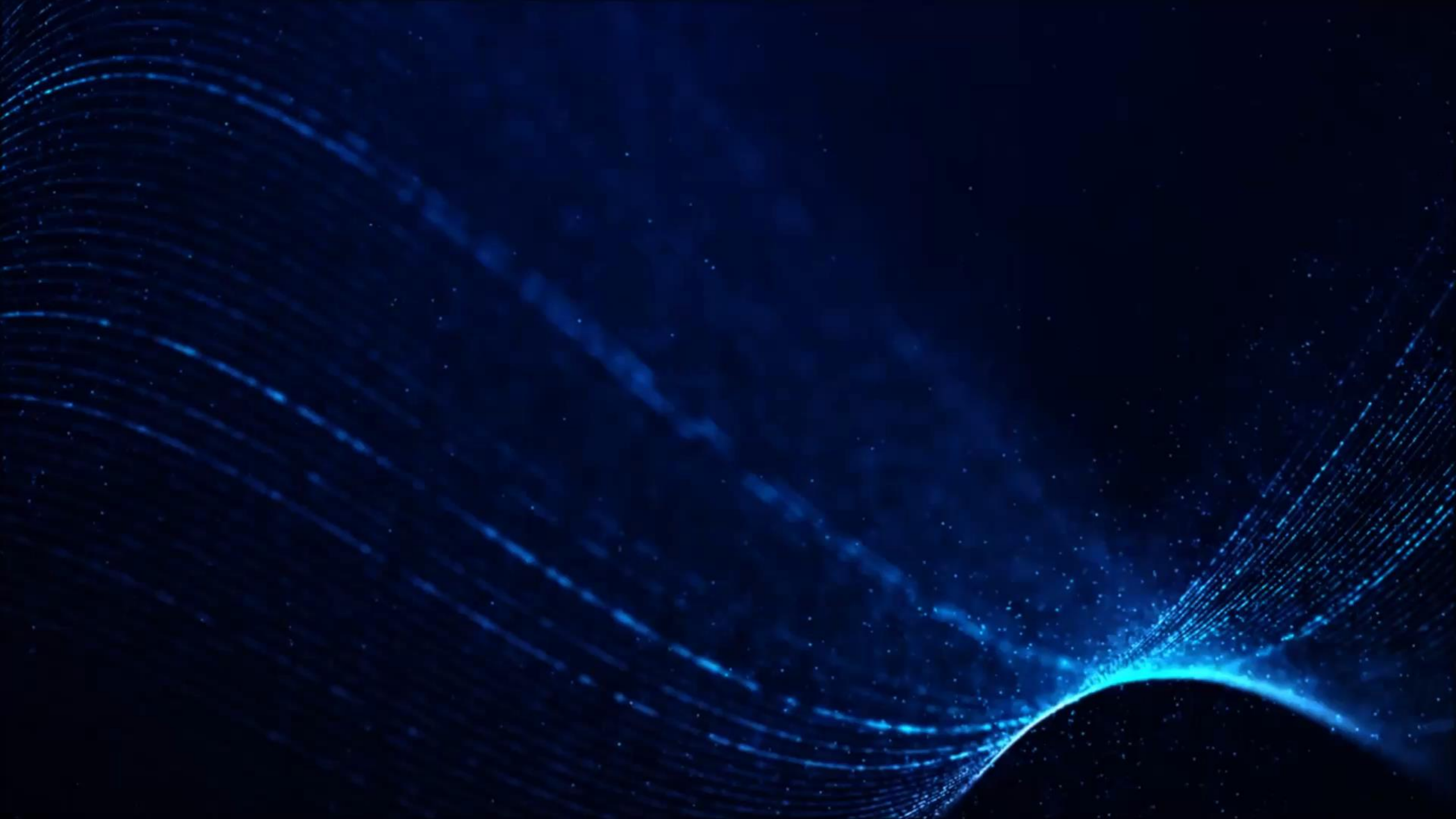


visage|SDK

95 landmarks

30 fps on smartphones

100 fps on desktops



Mobile AR

Apple ARKit 2.0

Google ARCore

Facebook Spark AR

850 M

Installed based

Smart Mirrors

Increased interest

- Households
- Stores

Estimated CAGR (by Big Market Research):

+11.7%

from 2019 fo 2026

Smartglasses

Enterprise focused

Millions of users by 2023
(forecasted by Digi-Capital)

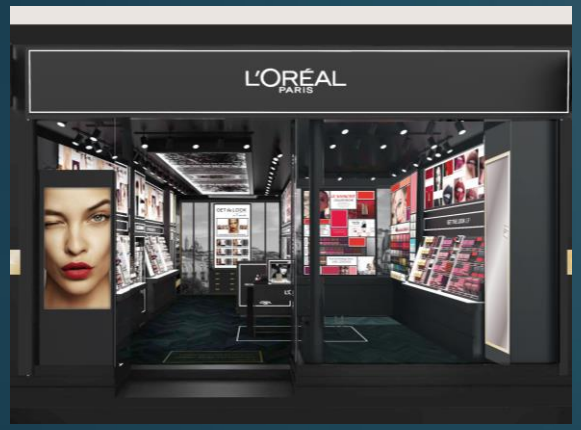
Revenue driver: hardware sales and enterprise software

Virtual reality

Examples and case studies

Guerlain

In-store smart mirrors



L'Oreal

In-store application for L´Oreal´s China subsidiary

NARS Pairs

In-store smart mirrors

CALRNIS Pairs

Virtual makeup smart mirrors for exhibitions

Giorgio Armani | **Scozzese and Uprising**

Virtual eyewear try-on

#SayYesToTheWorld

Disney | BETC

Character animation based on face tracking

XOXO
Hi
$10,000 REWARD
Canon
Zoemini

Thank you!

Gordan Kreković
CEO, Visage Technologies