

I'm beside you

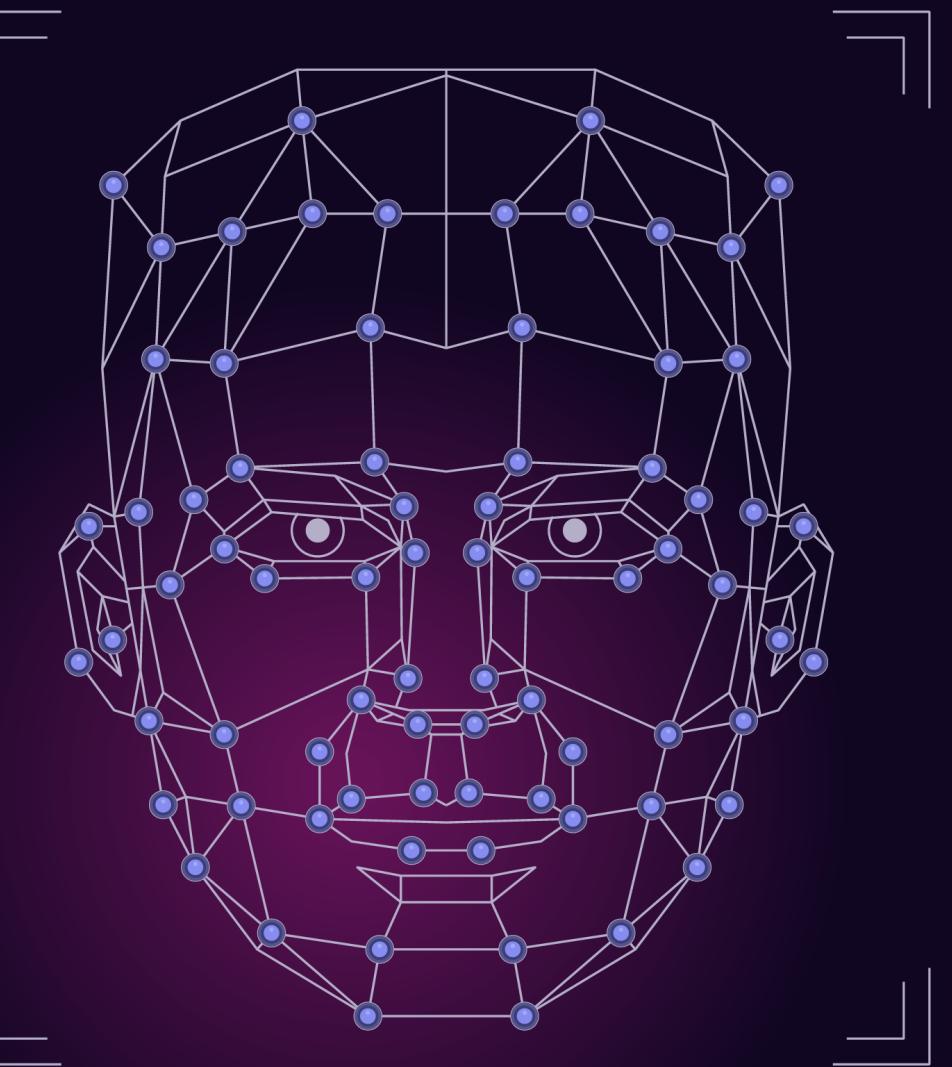
DESIGN DOCUMENT

REAL TIME AI FACE LANDMARK DETECTION



WHAT IS FACE LANDMARK DETECTION?

Machine learning technique that detects different points on your face. When you combine these together you're able to generate a mesh like you can see on the next slide. The model in this video detects 486 facial landmarks to infer the approximate surface geometry of a human face.

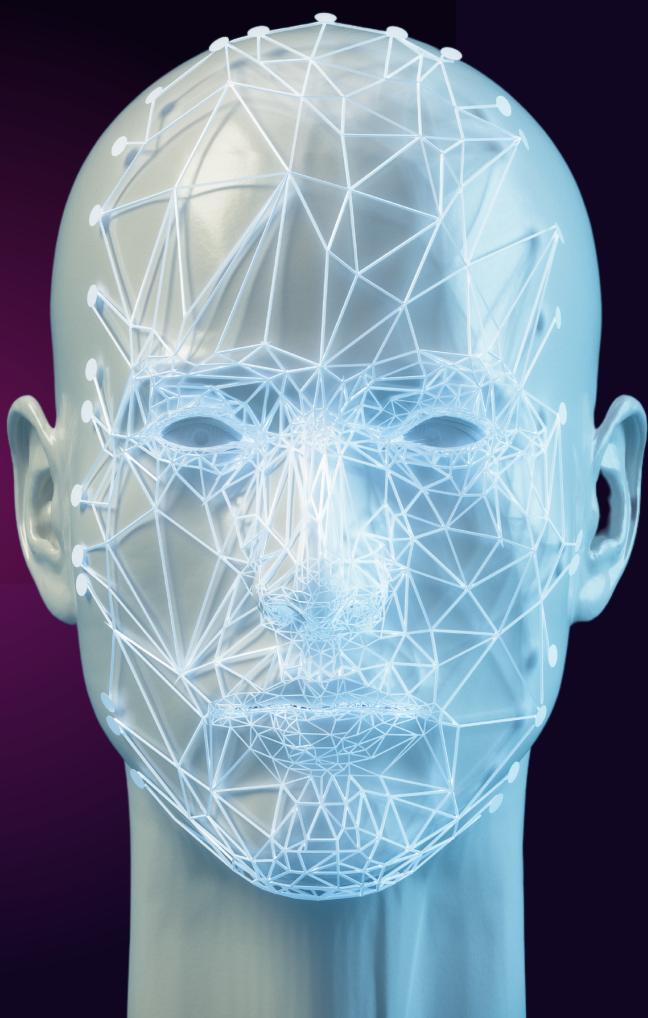


Mesh Generated



PROCEDURE

- Used react-webcam library to obtain video input
- Detection of 486 facial landmarks using tensorflow.js
- Used already trained face model to get set of triangular points
- Used model to form mesh structure of all the points
- Mapped mesh along with all 486 points on the canvas



WHY YOU ALLOCATE THE AI FUNCTIONALITY ON FRONTEND/BACKEND?

- AI functionality is implemented on the frontend
- "@tensorflow-models/face-landmarks-detection" is an easy to use react library
- Here repeated processing between backend and frontend is not required



THANK YOU

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