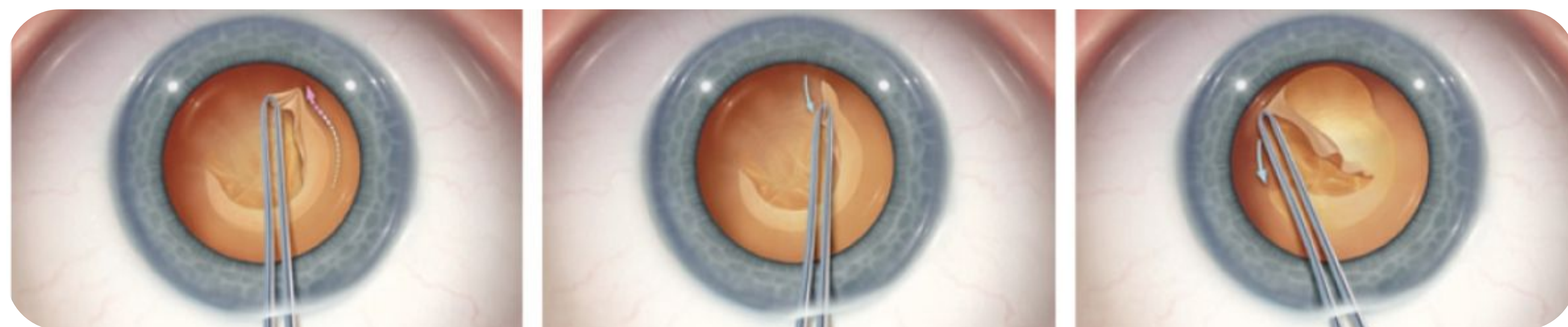


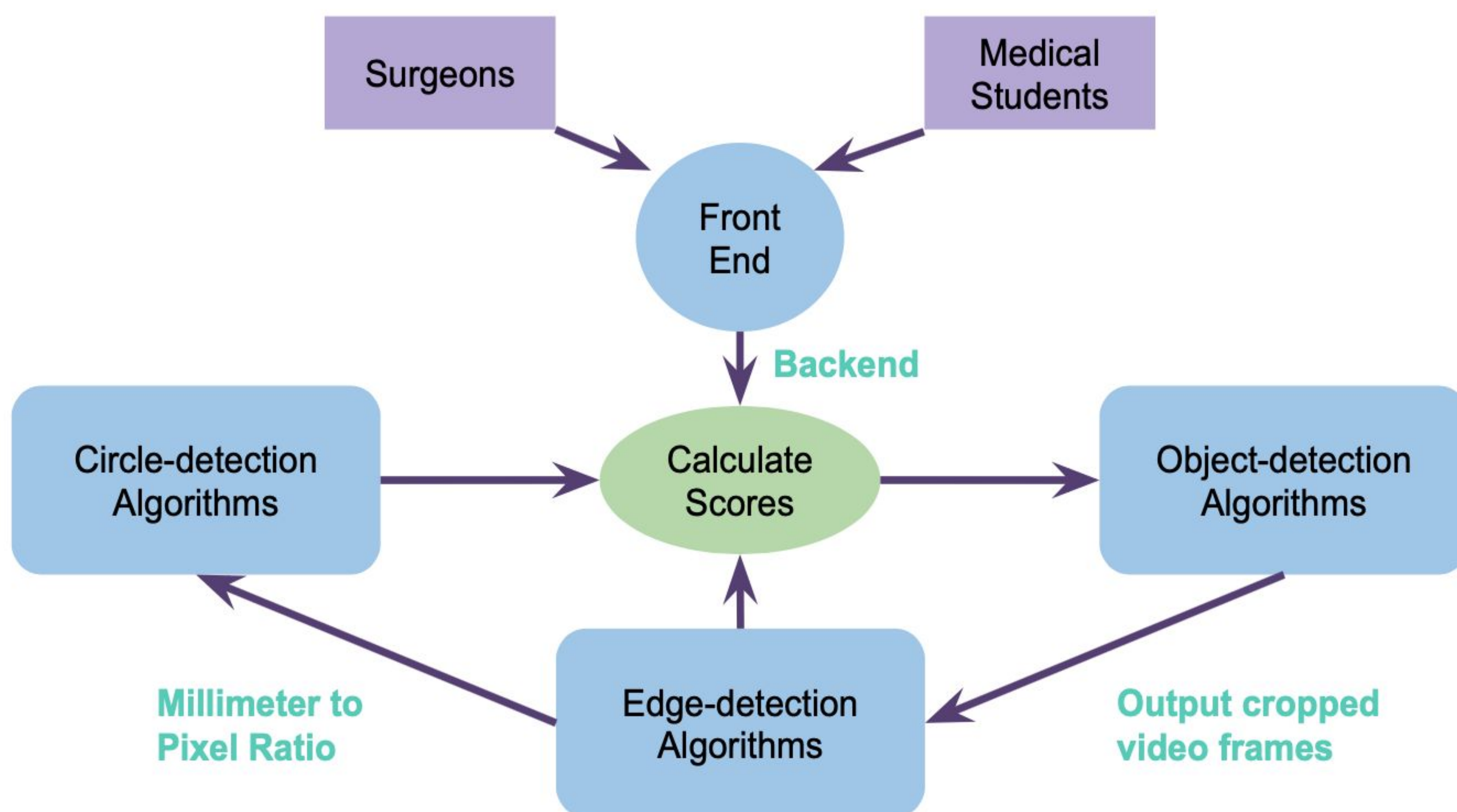
## OVERVIEW

In cataract surgery, **capsulorhexis** refers to a central and curvilinear opening in anterior lens capsule so that clear lens can be implanted.

To improve the **precision** of the cataract surgery, a program is designed to evaluate eye surgeons' performances on the capsulorhexis process.

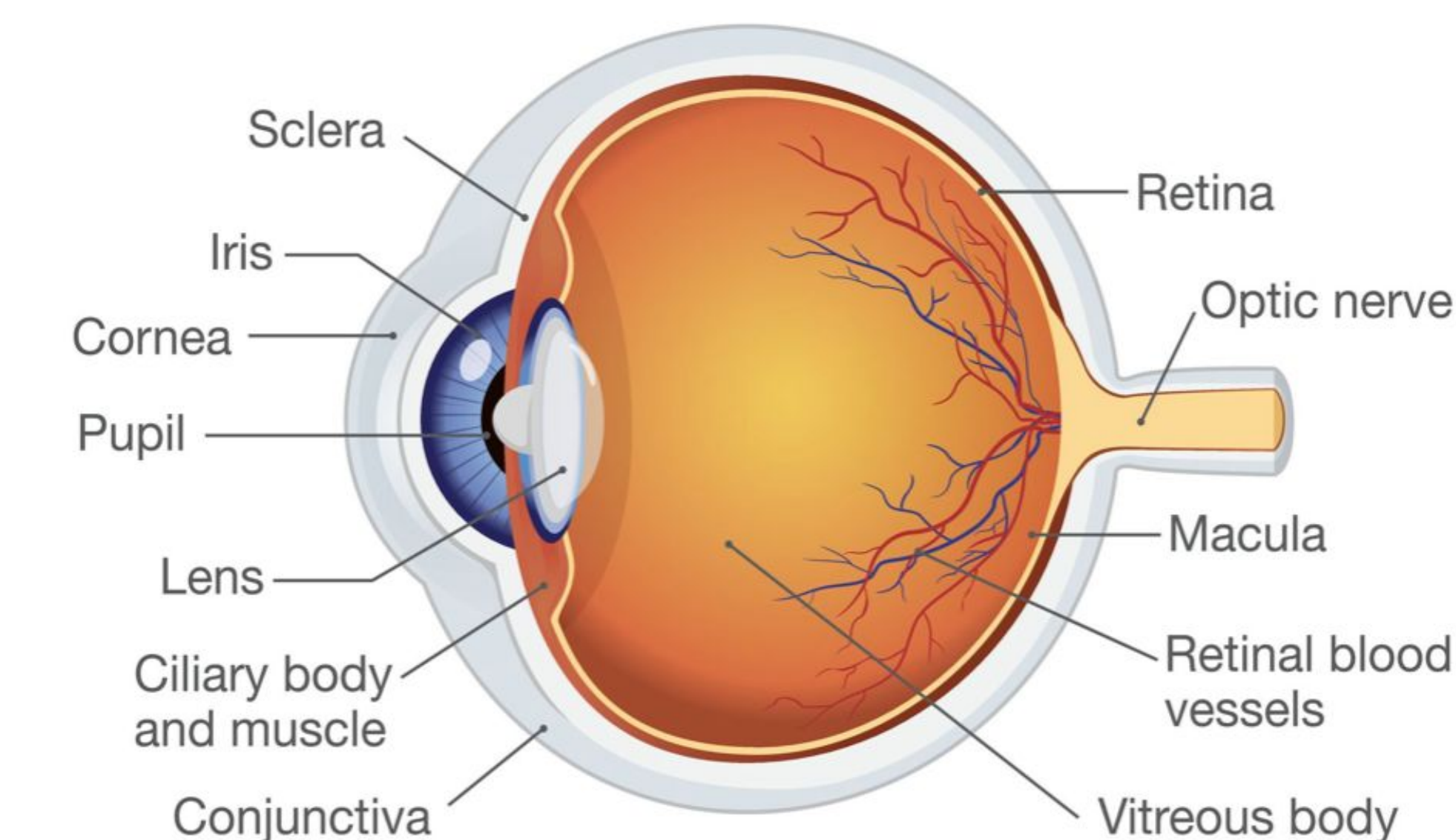
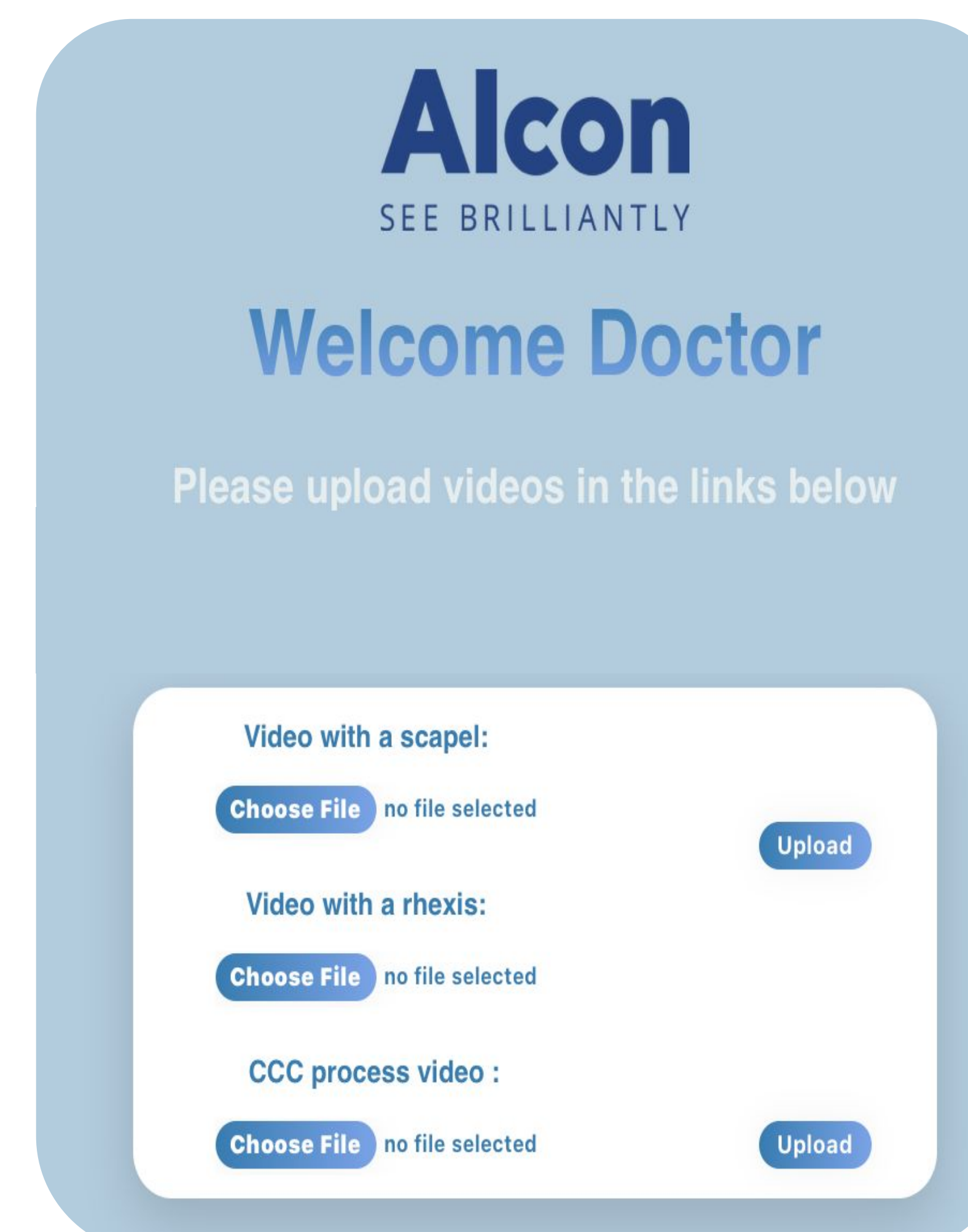


## ARCHITECTURE



## FRONTEND

A **web page** for eye surgeons to upload surgery videos and view scores of their performances.



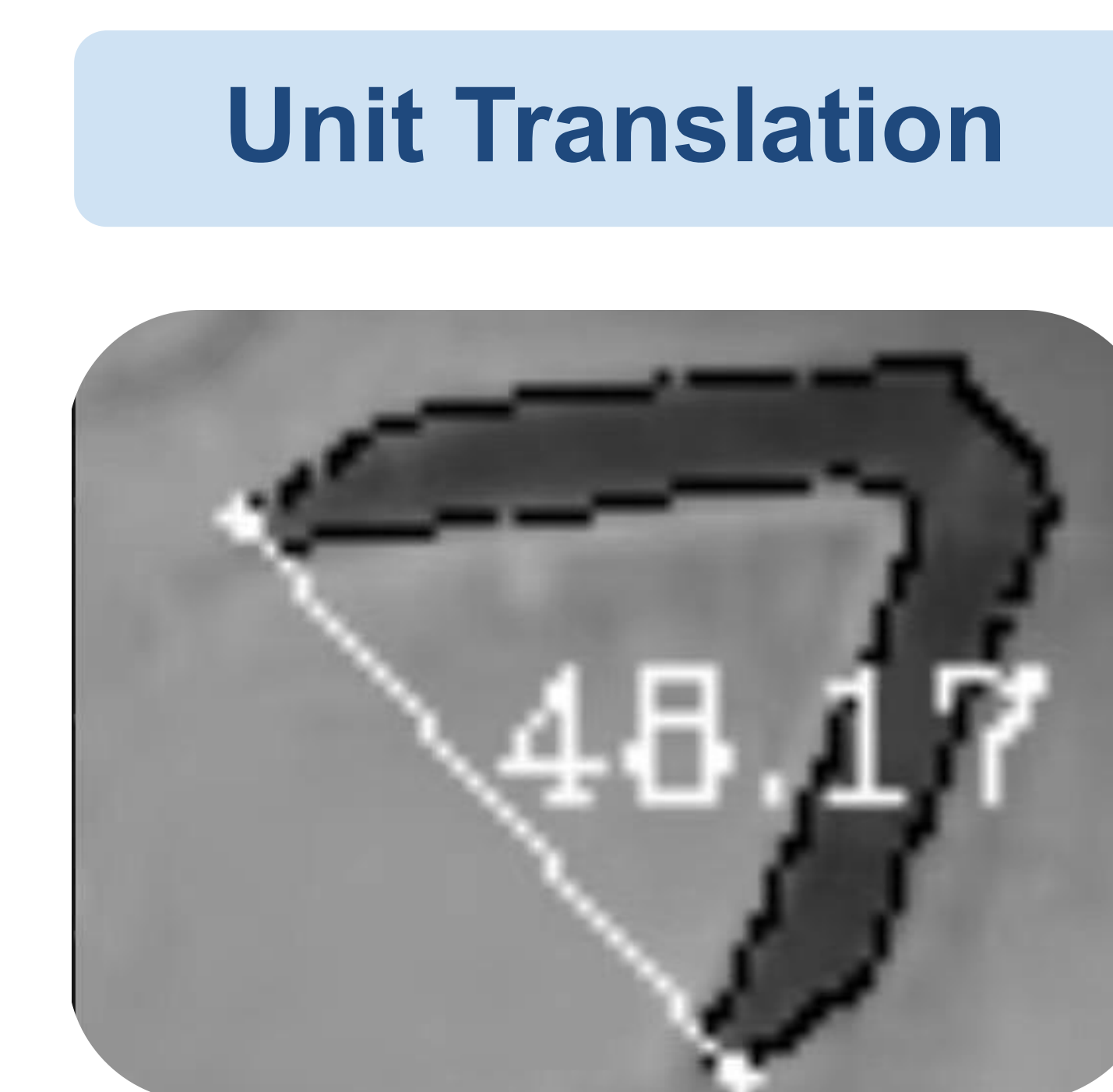
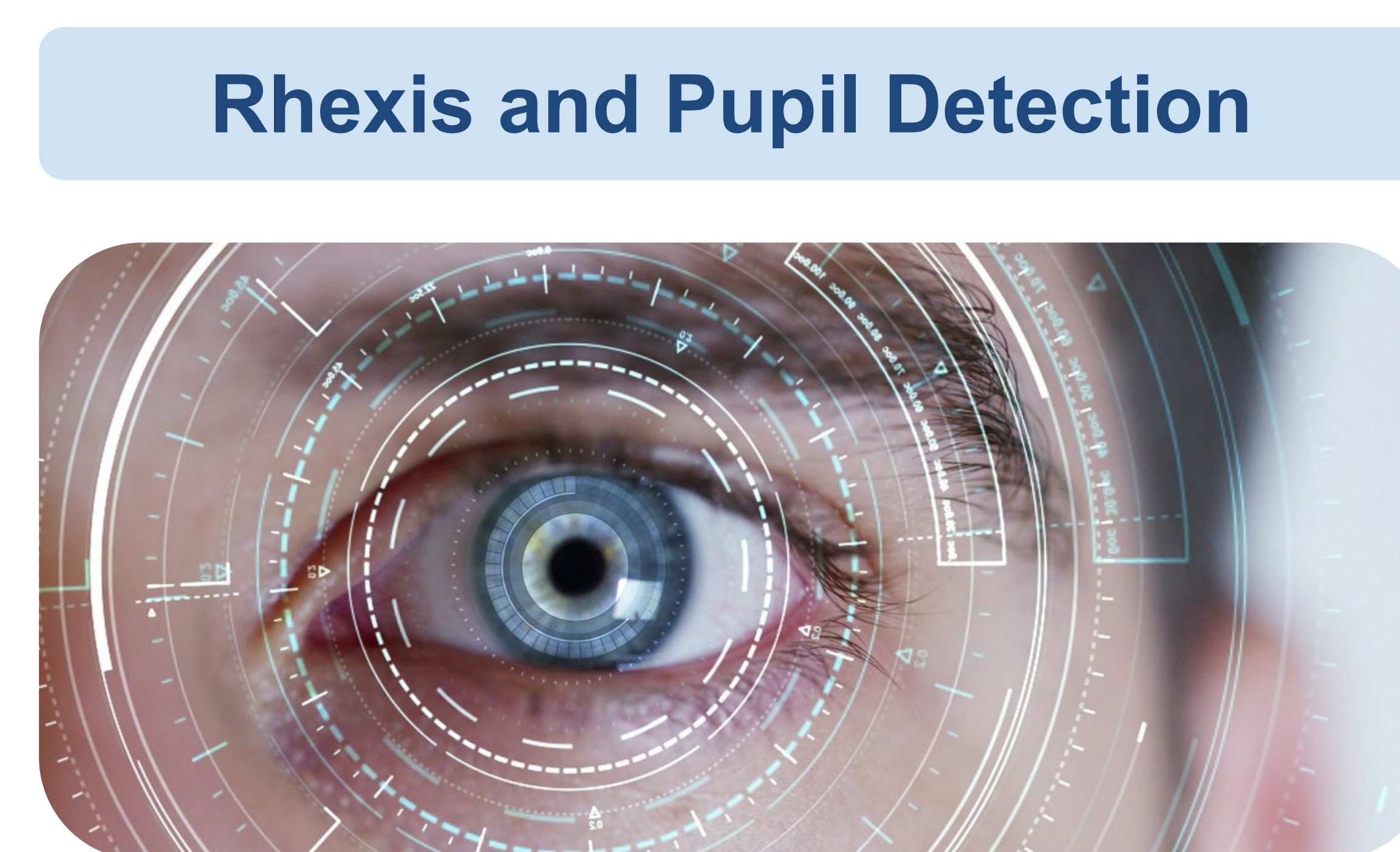
## BACKEND

Performance on four parameters

- **diameter, centration, roundness, speed** of the capsulorhexis

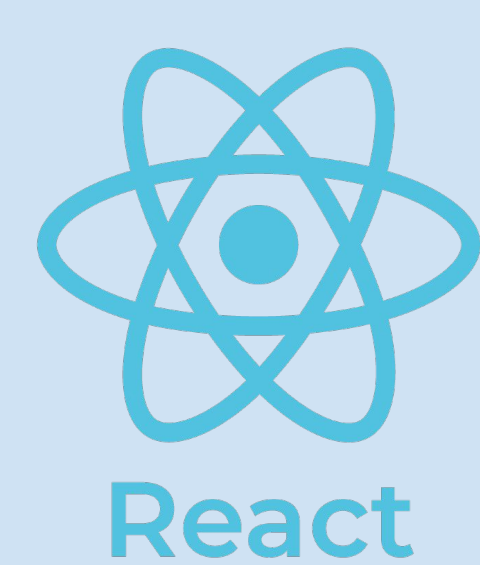
Three main algorithms

- **forcep-detection** for measuring speed of capsulorhexis
- **edge-detection** for calculating ratio between millimeter to pixel
- **circle-detection** for detecting the rhexis and limbus



## Team Members

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