

Virtual Reality Telemedicine

Team Vegetable & Rice



UC SANTA BARBARA

Meet the team.



Li Yuanqi
Team Lead



Chan Kenneth
UX Designer



Zhu Jinfa
Unity Engineer



Wan Shouzhi
Unity Engineer

01 Problem Demystified.

Drawbacks of traditional solutions.

Team Vegetable Rice

The screen is
too small to
work with



Team Vegetable Rice

**Too much
data to
deal with**



Productivity.

02 Our Solution.

An virtual reality platform.

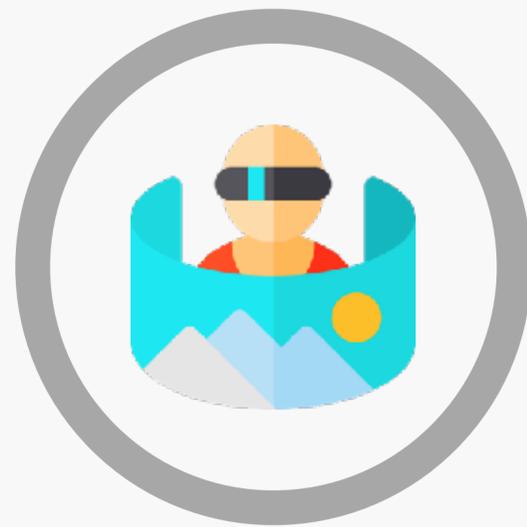
Team Vegetable Rice

Our goal...

is to *explore the potential of VR* in telemedicine, to create a *more productive and accessible* user experience.



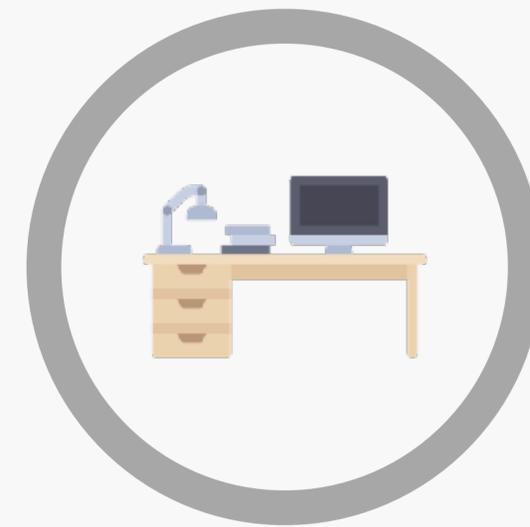
Design principles.



Space



Interaction



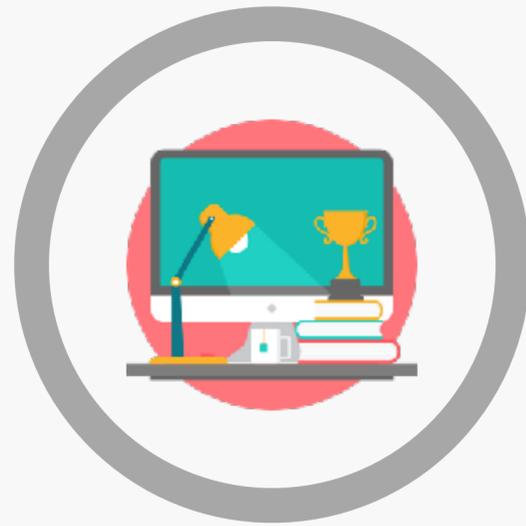
Extensibility



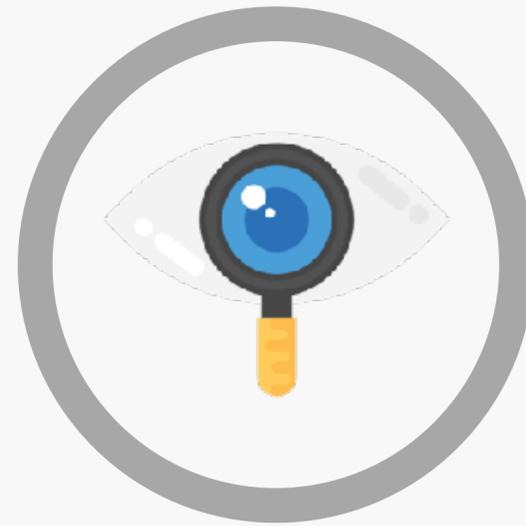
#01. Redefining **Space**

Expanding the limited screen.

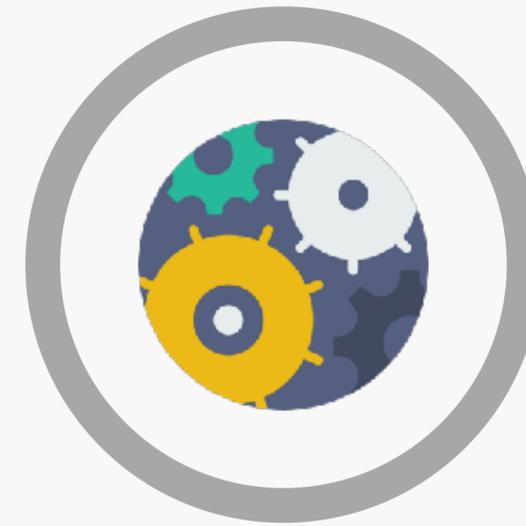
Presenter **Jinfa**



Working space



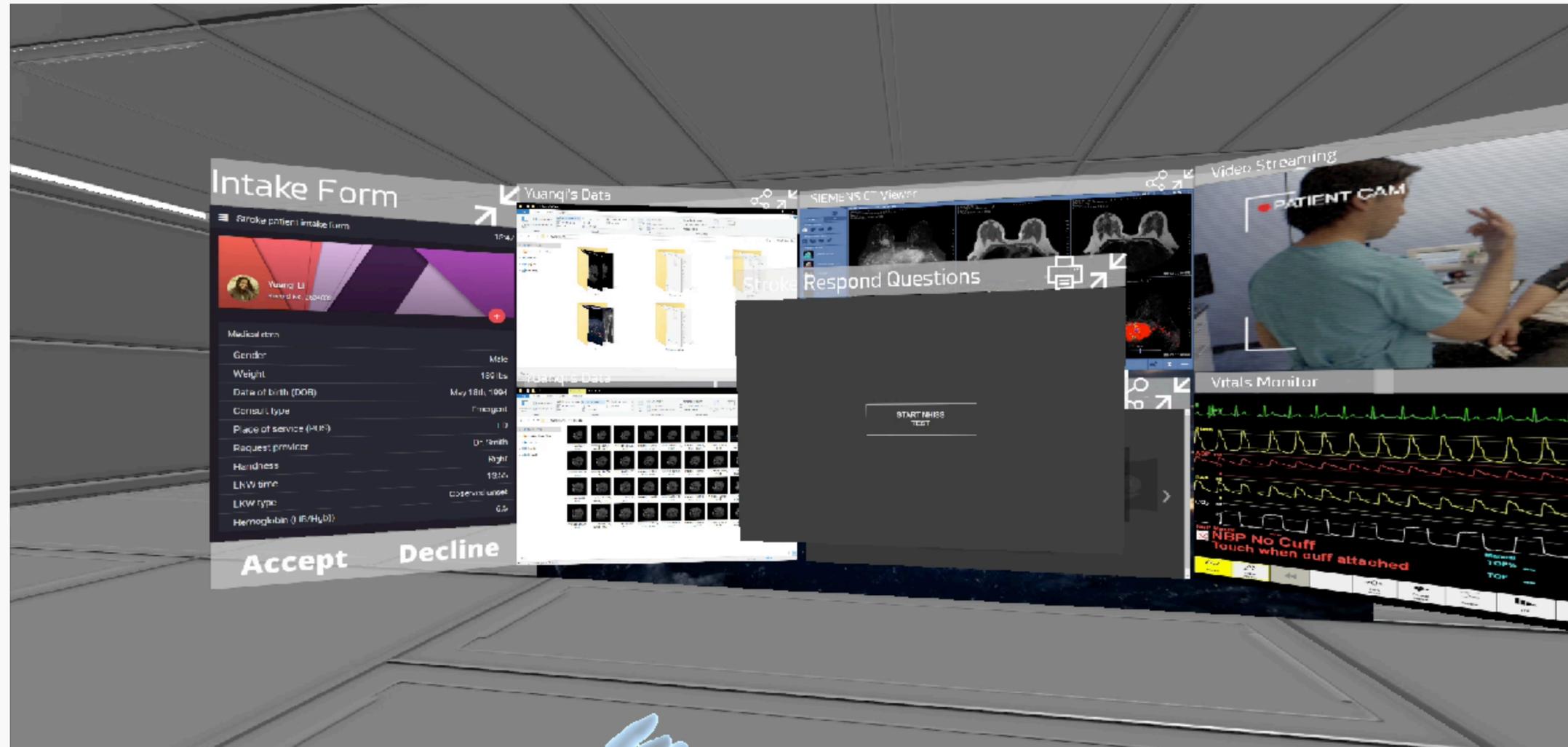
Eye space



Side space

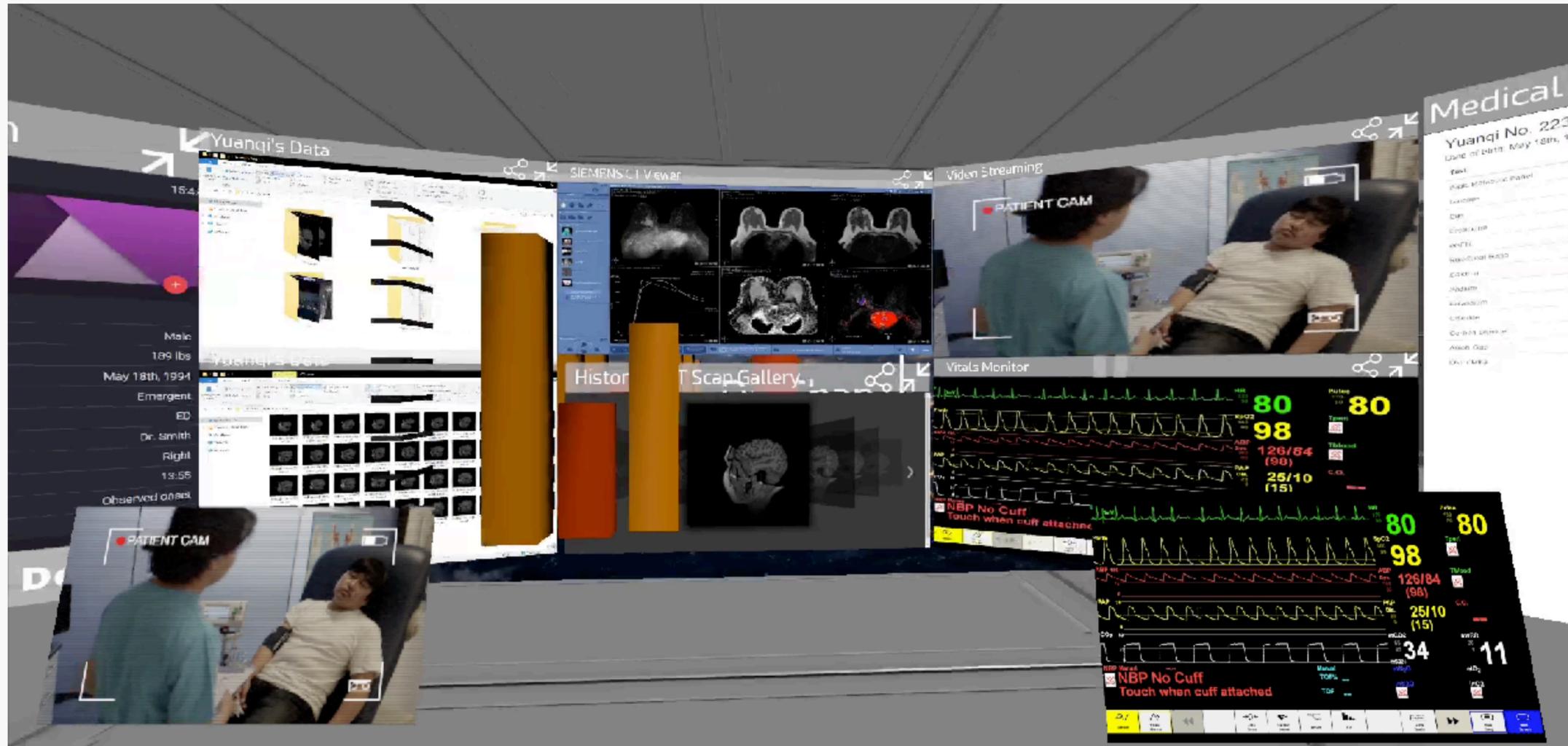
Working space.

A curved surface in front of you.



Eye space.

An area fixed to your eyes. Always on.



Side space.

Things that are always accessible on your side.



#02. Redefining **Interaction**

Unprecedented, simple, and intuitive.

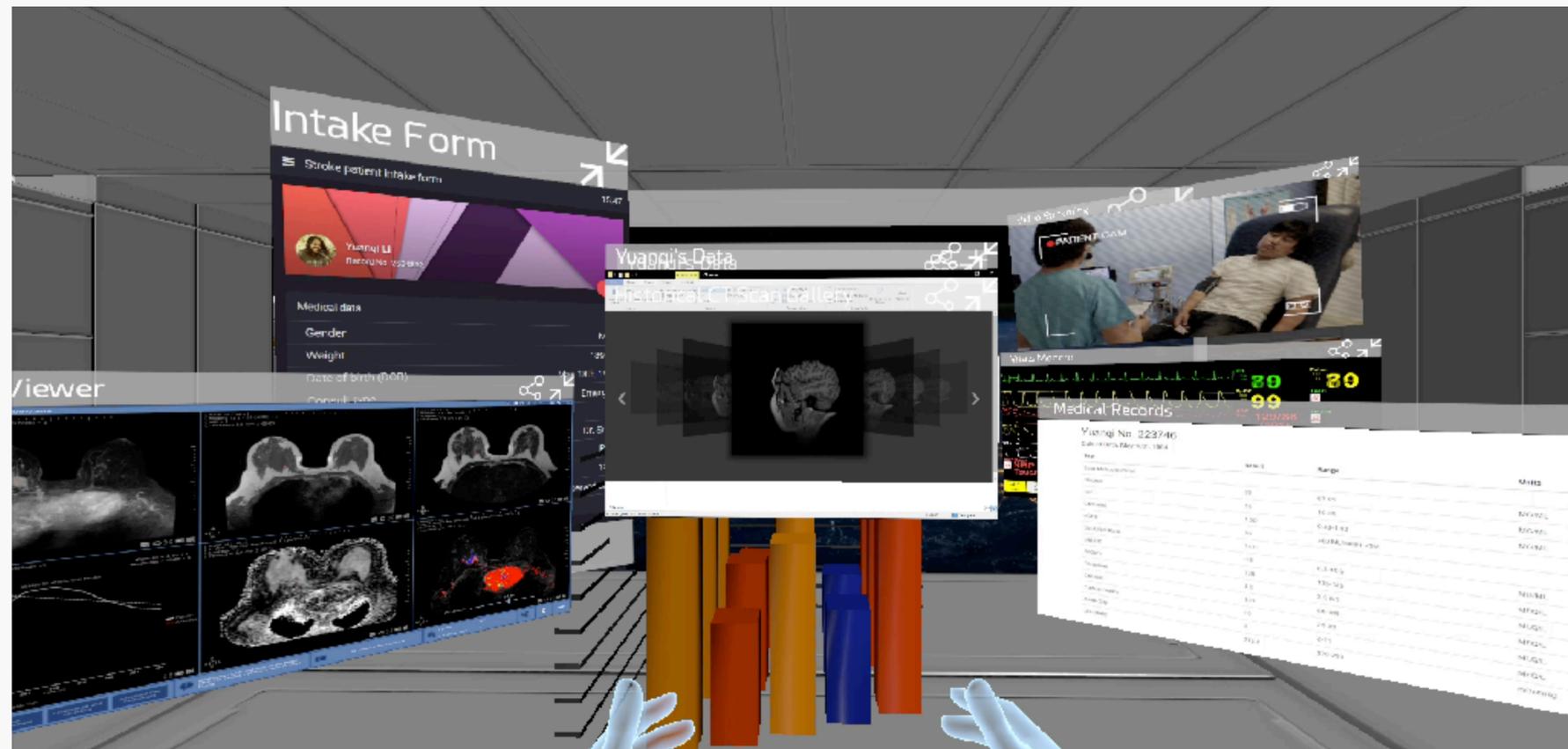
Presenter **Kenneth**

2018 CS Summit



Hand gestures.

- Powered by *machine learning*, 100 samples per track.
- *Push* to minimize, *pull* to reopen, *spread* to reposition.



Controllers.

Expanding actions and possibilities.



Grab and resize your windows as you wish.





#03.
Redefining **Extensibility**
Platform vs. Application.

Presenter **Shouzhi**

Extensibility.



Unity native application

Unity C#



Windows native application

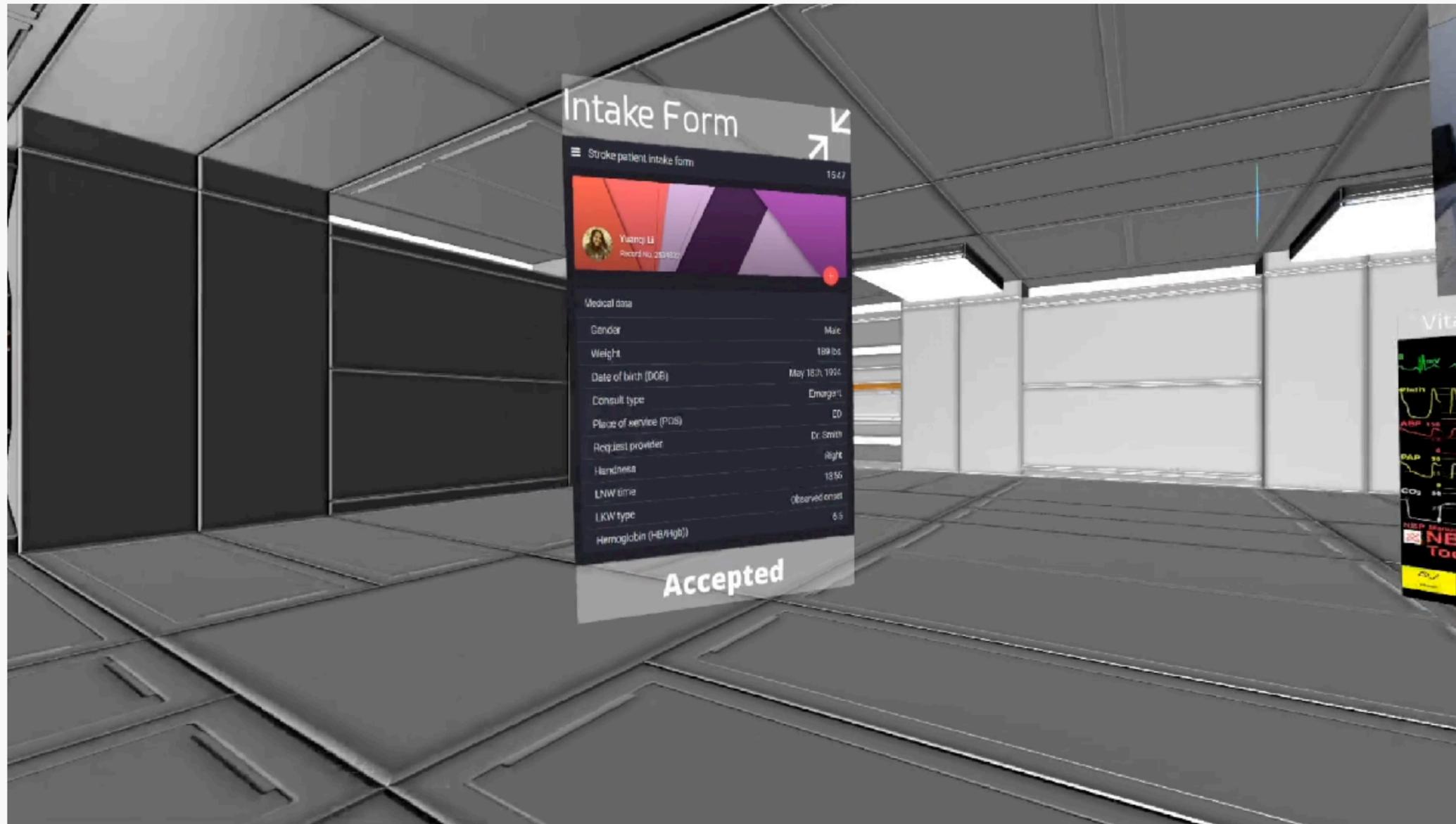
Win32 API



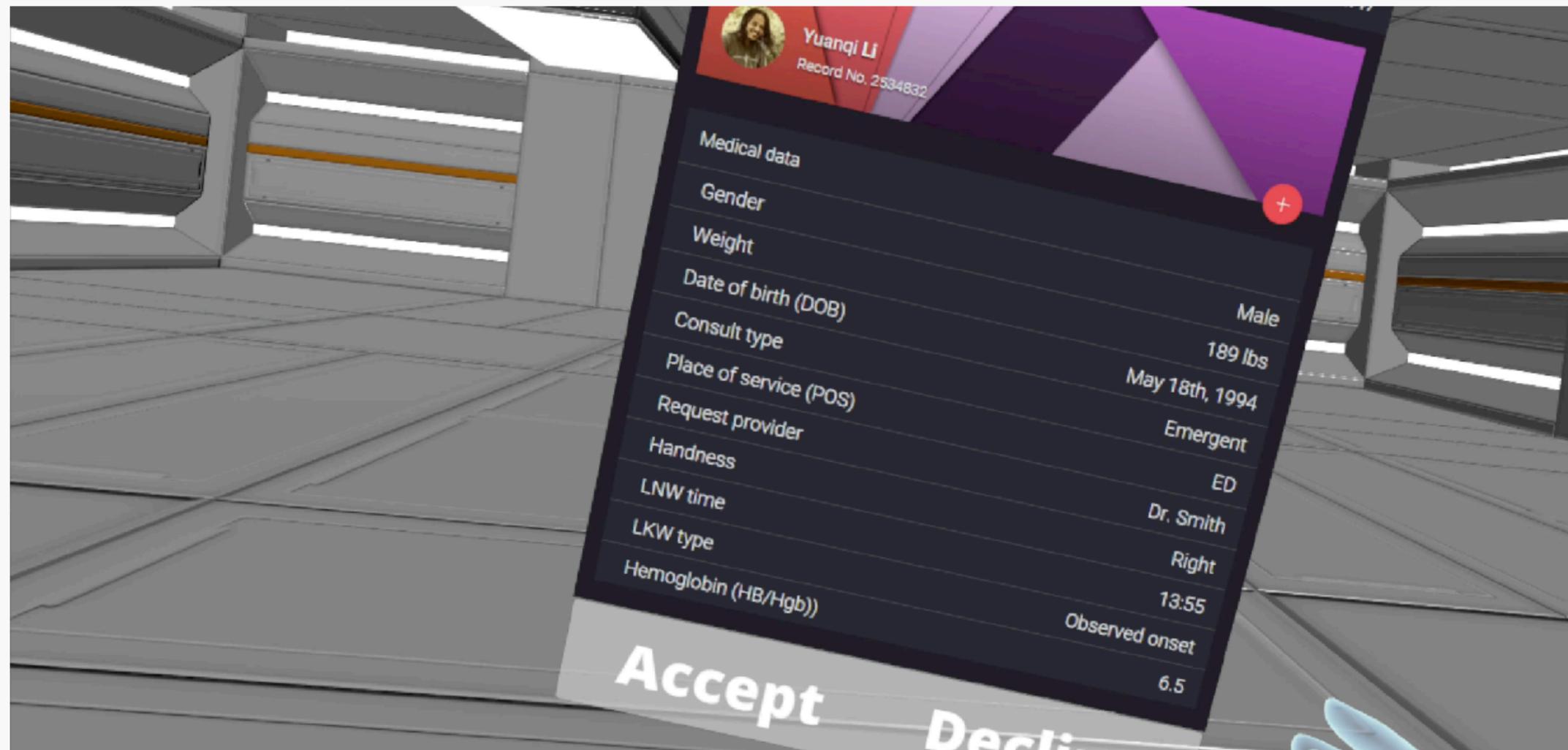
Web based application

Chromium

Windows native plus our API.



Rendering web based apps.



This is our
SOLUTION
To VR Telemedicine.

Future Work.

1. More unity native apps.
2. Improve graphics quality.

Thanks!

Any Questions?



UC SANTA BARBARA