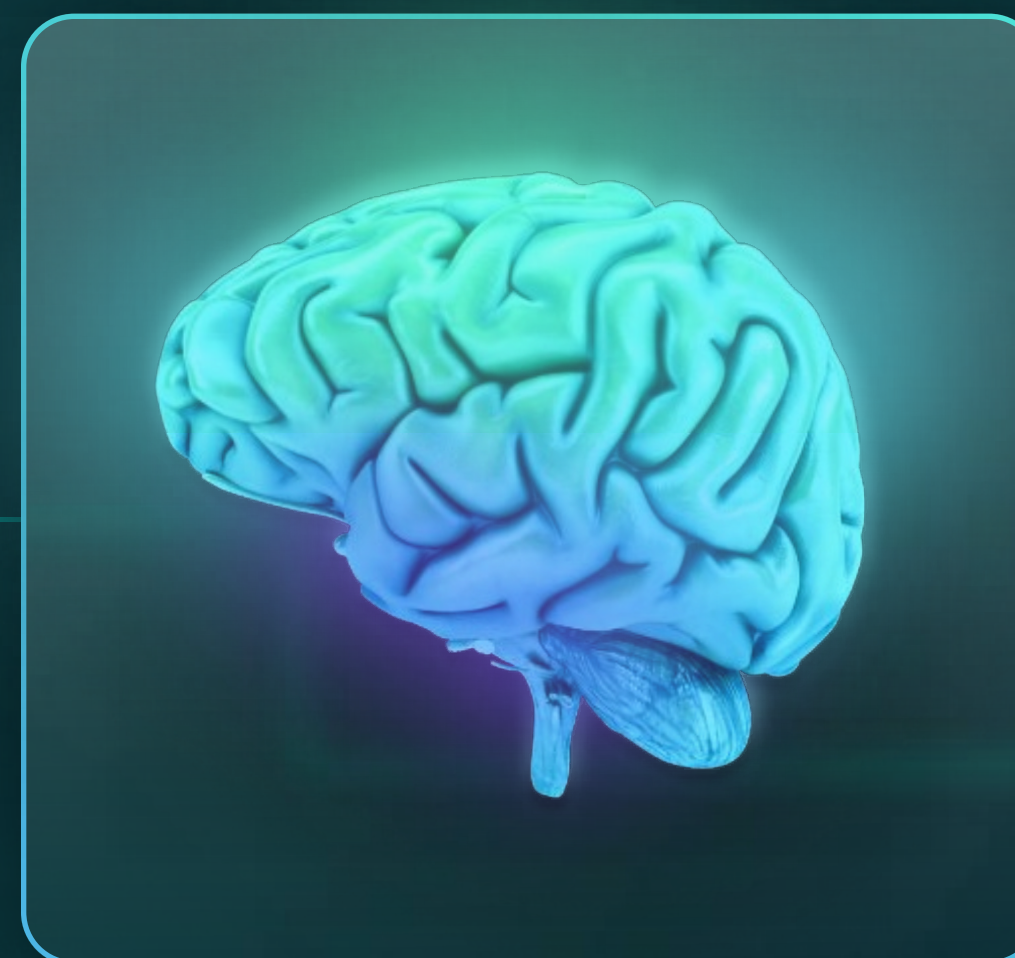# CORETECHS
SOLUTIONS

Empowering Healthcare with Digital Solutions.

We are committed to driving healthcare innovation by empowering our clients' breakthroughs with our expertise & support.

Why CoreTechs

Experts in Healthcare

With doctors on our team, we bring hands-on experience from numerous healthcare projects, offering deep industry expertise and an understanding of the unique needs of healthcare organisations.

Driven by Innovation

As a spin-off from the research and development facility of the University of Pécs, we are uniquely positioned to bridge the gap between cutting-edge research and practical real-world applications.

All-round Solutions

We deliver comprehensive solutions by leveraging the power of VR/AR simulations, artificial intelligence, and a broad spectrum of web and software development, including bespoke hardware solutions.

Our solutions

- Digitalization consulting

- Custom software development

- VR & AR developent

- Web application development

- Mobile app development

- Insourcing/staff augmentation

Key Areas

Digital Health

Transforming healthcare delivery with custom-built solutions, from remote diagnostics to patient management systems, streamlining healthcare for a connected future.

Medical Education

Enhancing medical training with immersive VR/AR solutions, integrated hardware simulators, and supporting content creation, such as surgical streaming services.

Disruptive Engineering

Driving medical innovation beyond boundaries, from healthcare to space & defence. Delivering software, hardware, and R&D solutions for public and private needs.

Our team

Born as a spin-off from the Faculty of Medicine's internal development team, our company was established to extend the targeted expertise gained in digital product development for the university and its clinics to other healthcare organizations.

Our team possesses extensive expertise across the entire digital product development lifecycle, supported by a robust network of researchers and medical experts.

14 Developers

1 UX/UI Designer

2 BA/PM

Technologies

Back End

Python (Django)
PHP (Laravel,
Laminas)
C# (.NET)
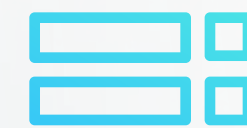Java (Spring)
Typescript (NodeJS)

Front End

Typescript (Vue,
Angular)
Javascript (Vue,
Angular)
HTML
SCSS
CSS

Cross platform

Electron
Ionic
Unity

Data Base

msSQL
MySQL
mongoDB
postgreSQL

Unity - VR/AR

Android XR
VisionOS
Windows PCVR
SteamVR
MRTK

Desktop

WebGL
Windows app
iMac app

Our clients

A Client's Experience

There was no telemedicine solution on the market that could be customised to our unique needs while also supporting the use of smart devices for remote diagnostics. We were looking for a team that could not only assist with implementation but also understand our operations and actively contribute to shaping the concept.

The CoreTechs team exceeded our expectations, delivering a system that opens up entirely new possibilities for us, with ongoing support throughout the process.

Dr. Gergely Csaba
PTE ÁOK Institute of Behavioral Sciences;
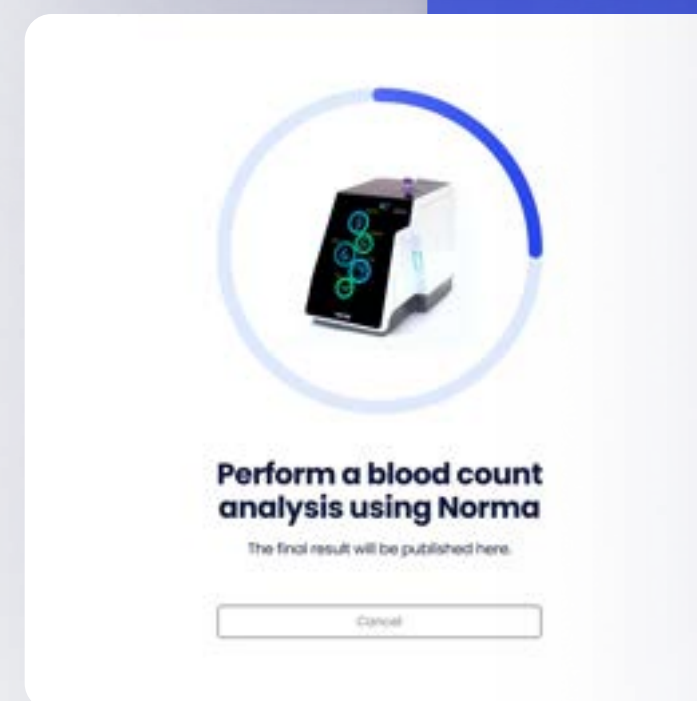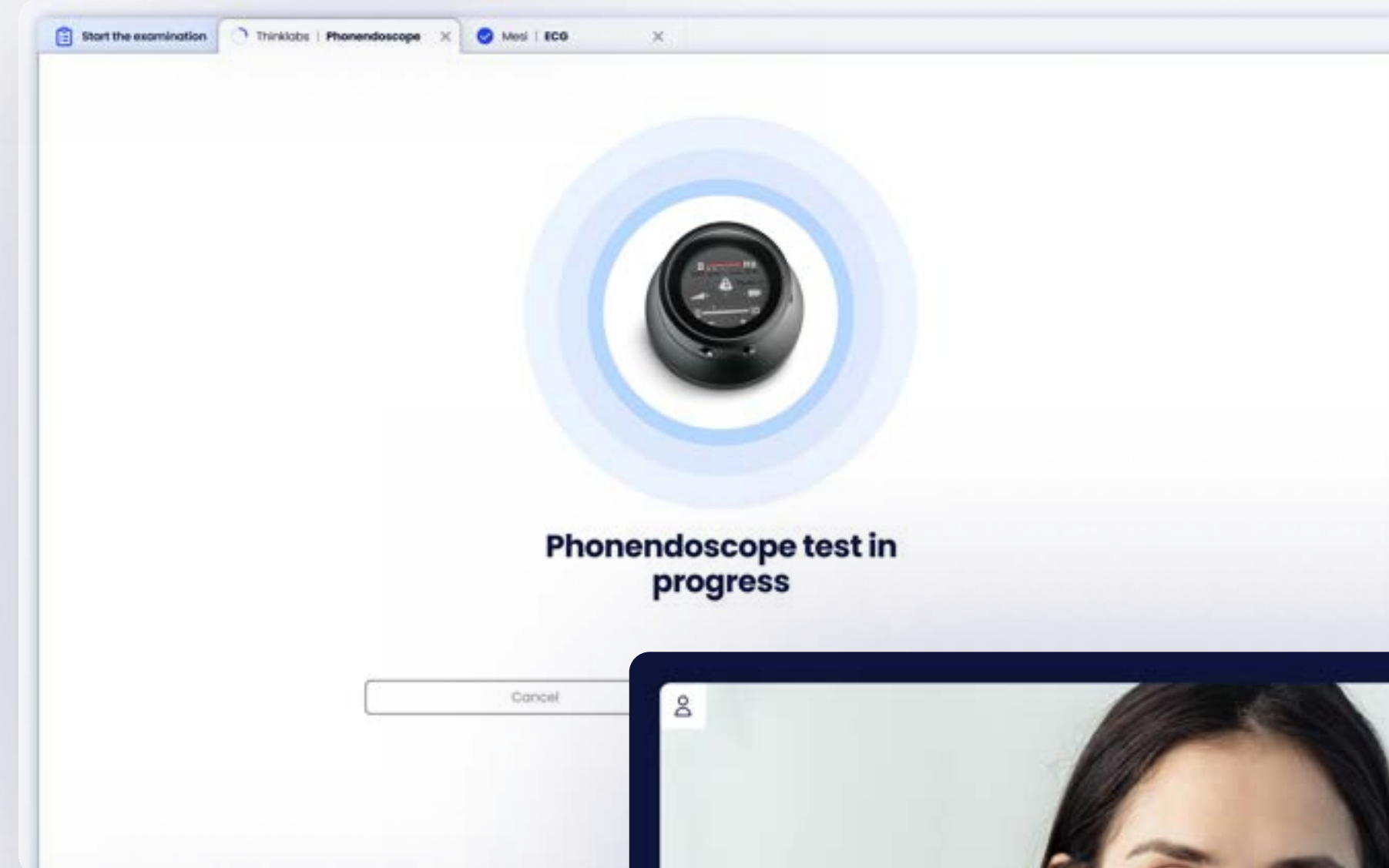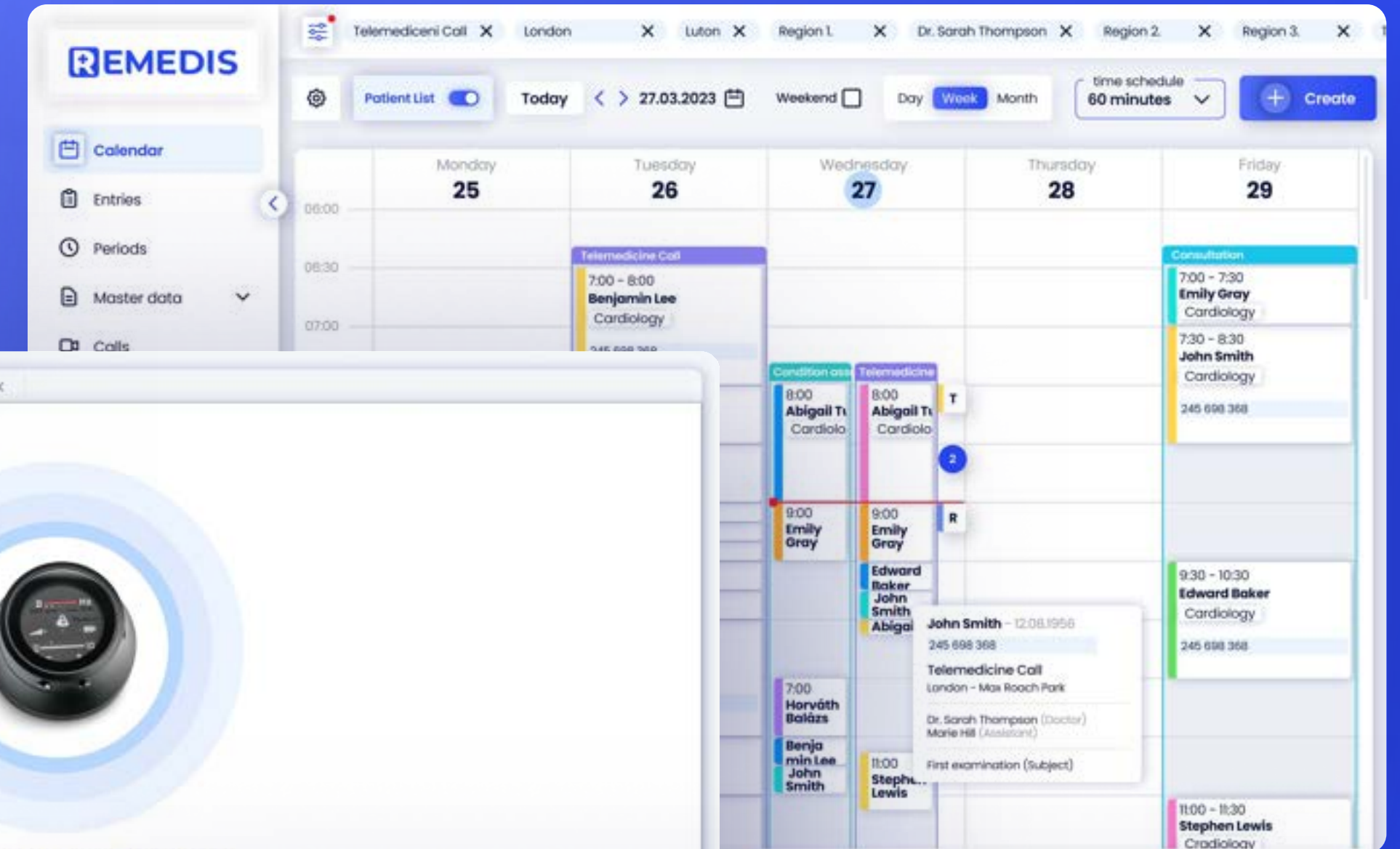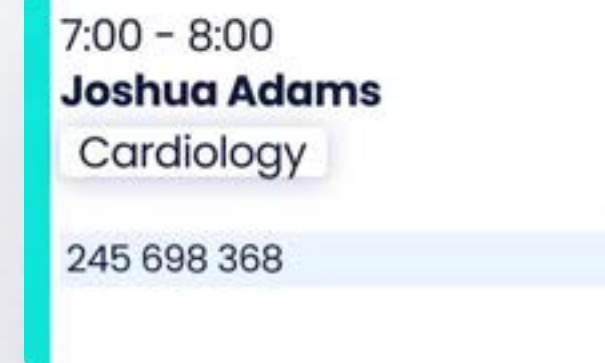
Success Stories

Remedis

Software development, hardware integration

A telemedicine system with third-party device integration that empowers assistants of the Hungarian Charity Service of the Order of Malta to provide remote care to underserved communities. Remedis facilitates seamless video connections and supports thorough diagnoses through the integration of a wide range of healthcare monitoring devices, including stethoscopes, ECGs, spirometers, blood pressure monitors, blood analyzers, and otoscopes.

- **Java Spring**
- **Vue.js**
- **Electron**
- **MySQL**
- **Typescript**

OmniScene

Mobile app development

A multi-user VR simulation application that enables simultaneous interactions, annotations, and modifications of realistic 3D medical models, allowing slicing along two axes.
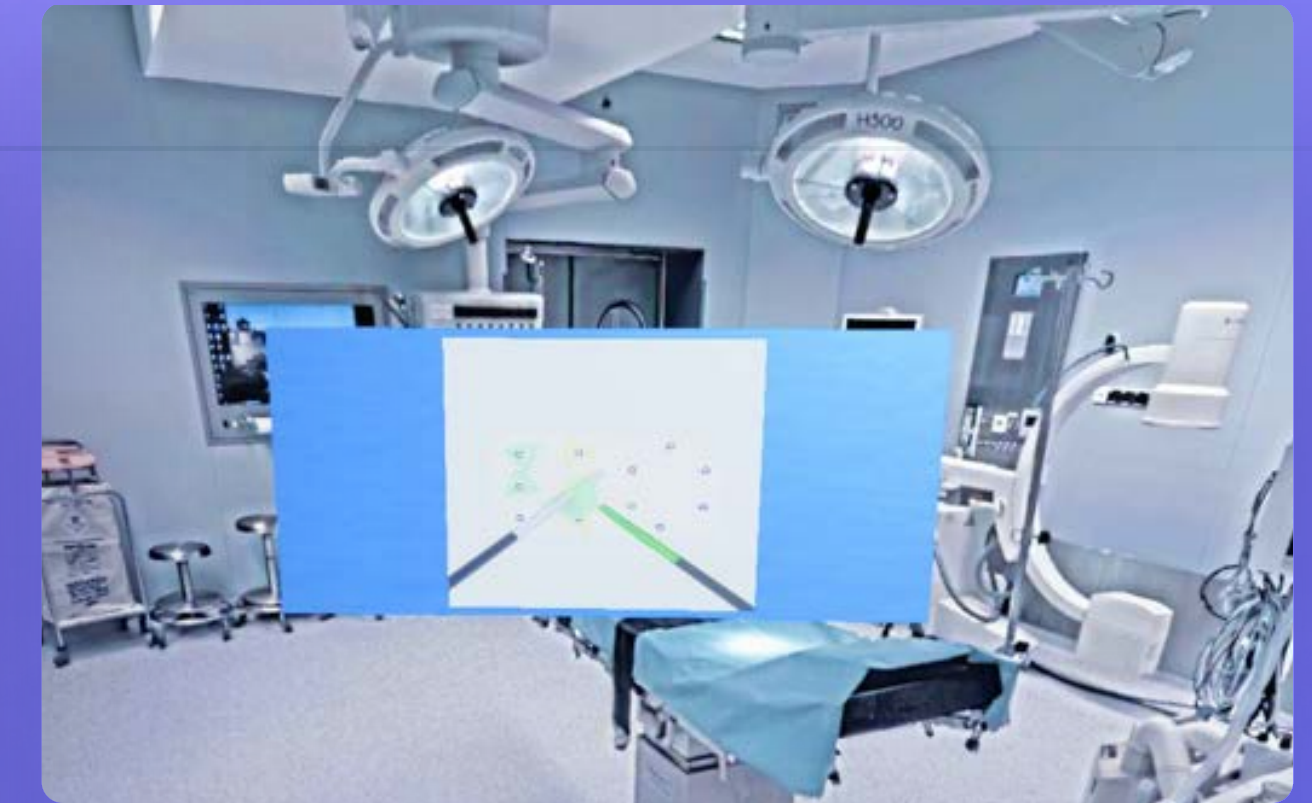
- C# - Unity

LaparoScene

VR & Hardware Simulator

Our hardware and VR trainer is designed to practice the fundamental movements of laparoscopic surgery without the wear and tear associated with physical simulators. Included in the kit, LaparoScene allows surgical instruments to be attached to the Oculus 2 and 3 controllers, providing an immersive training experience through the handset buttons.
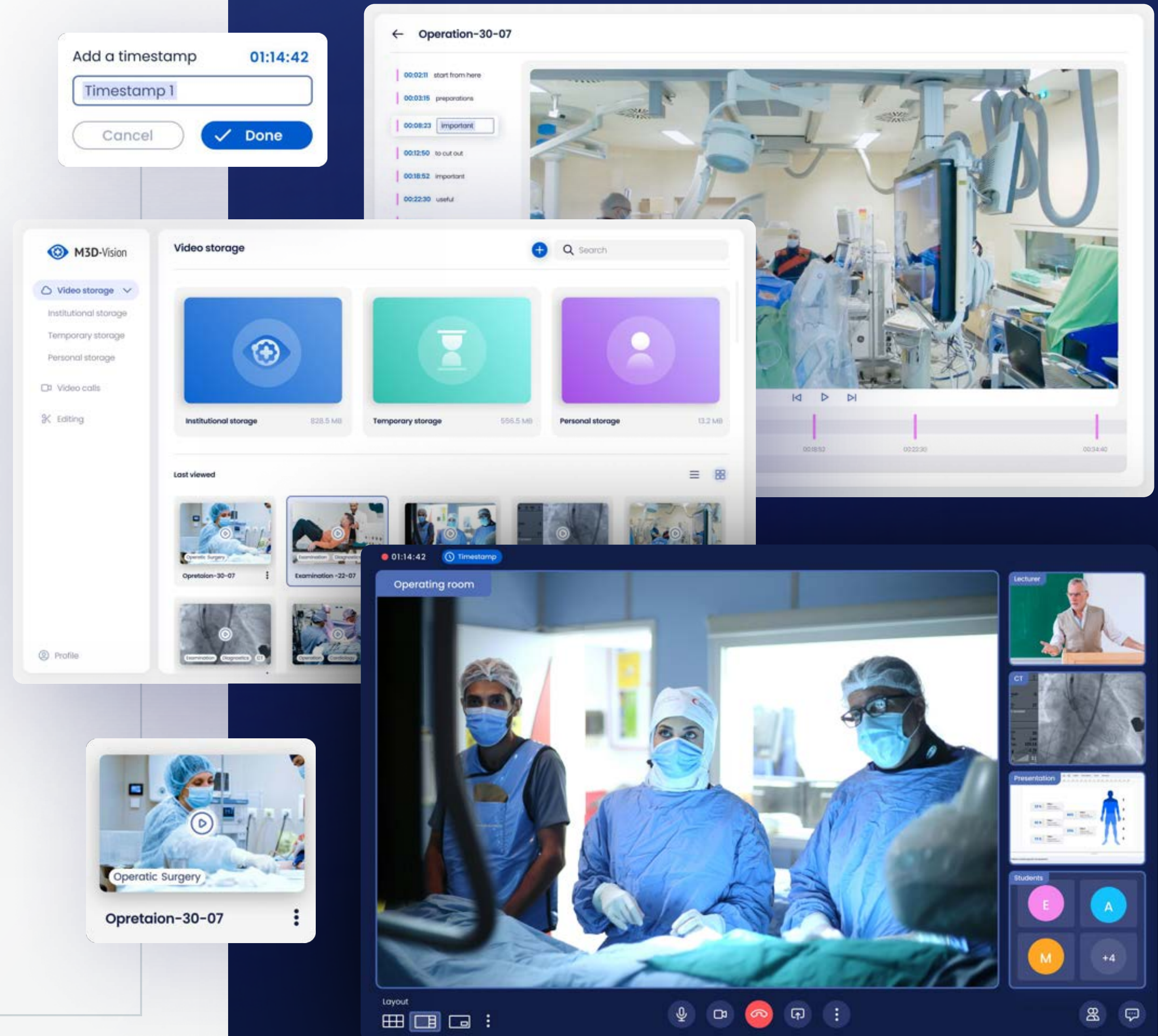
- C# - Unity

M3DVision

Software & Hardware Infrastructure

A medical simulation case study management module for educational software, enabling the editing and live streaming of 2D and 3D recordings, creation of complex educational materials, and custom assessment options, used in 11 teaching hospitals in Hungary. Our team not only developed the software but also designed and provided the hardware infrastructure.

- **Angular**
- **Typescript**
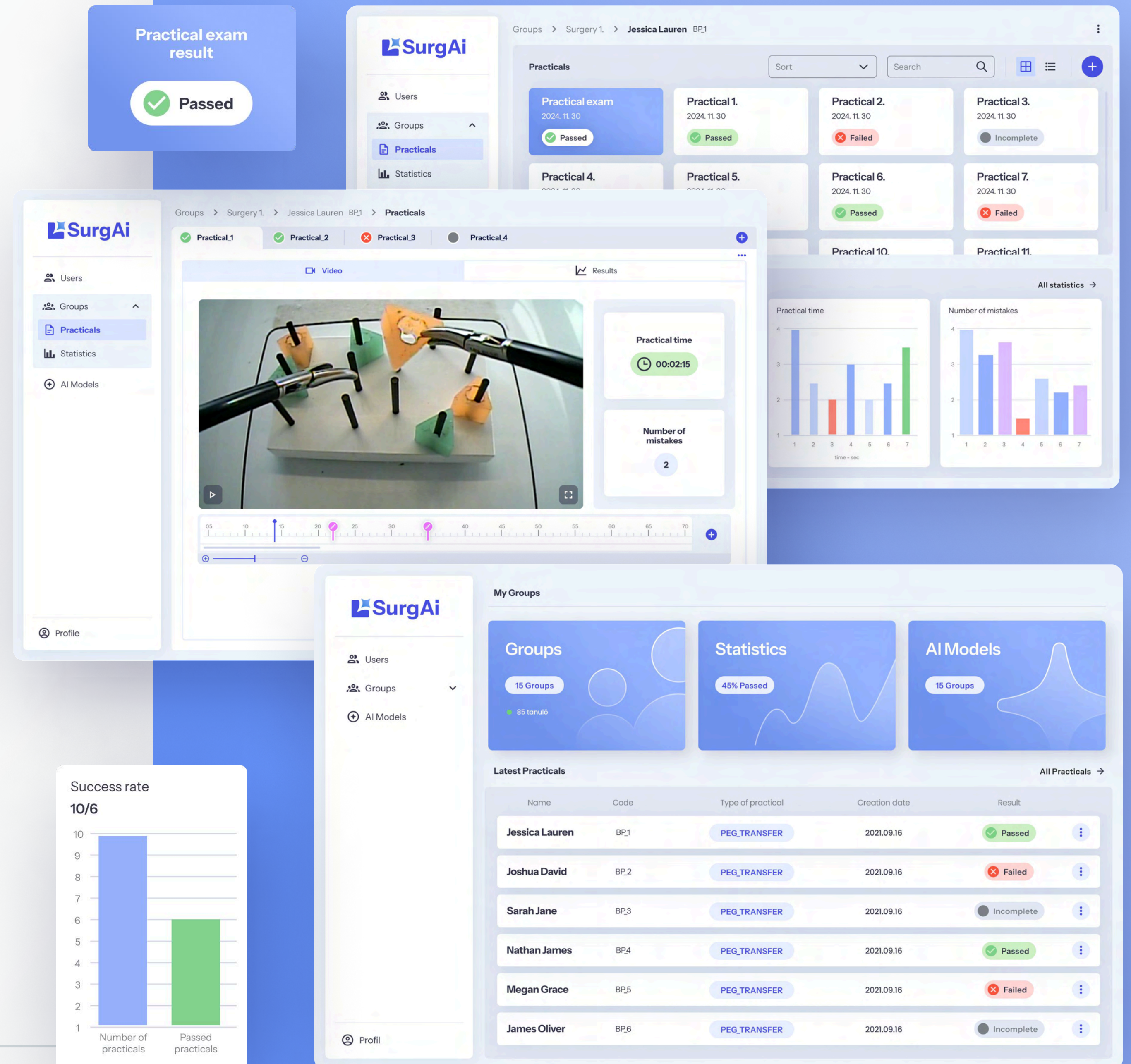- **Node.js**
- **Python**
- **GStreamer**
- **C++**

SurgAI

AI-powered laparoscopic training software

An AI-supported training framework that delivers objective assessment and feedback for laparoscopic movements performed on box trainers. The system analyses video recordings using object detection and AI-powered feature extraction. The product has been scientifically validated and published in a D1 article.

- **Python**
- **Java Spring**
- **Vue.js**
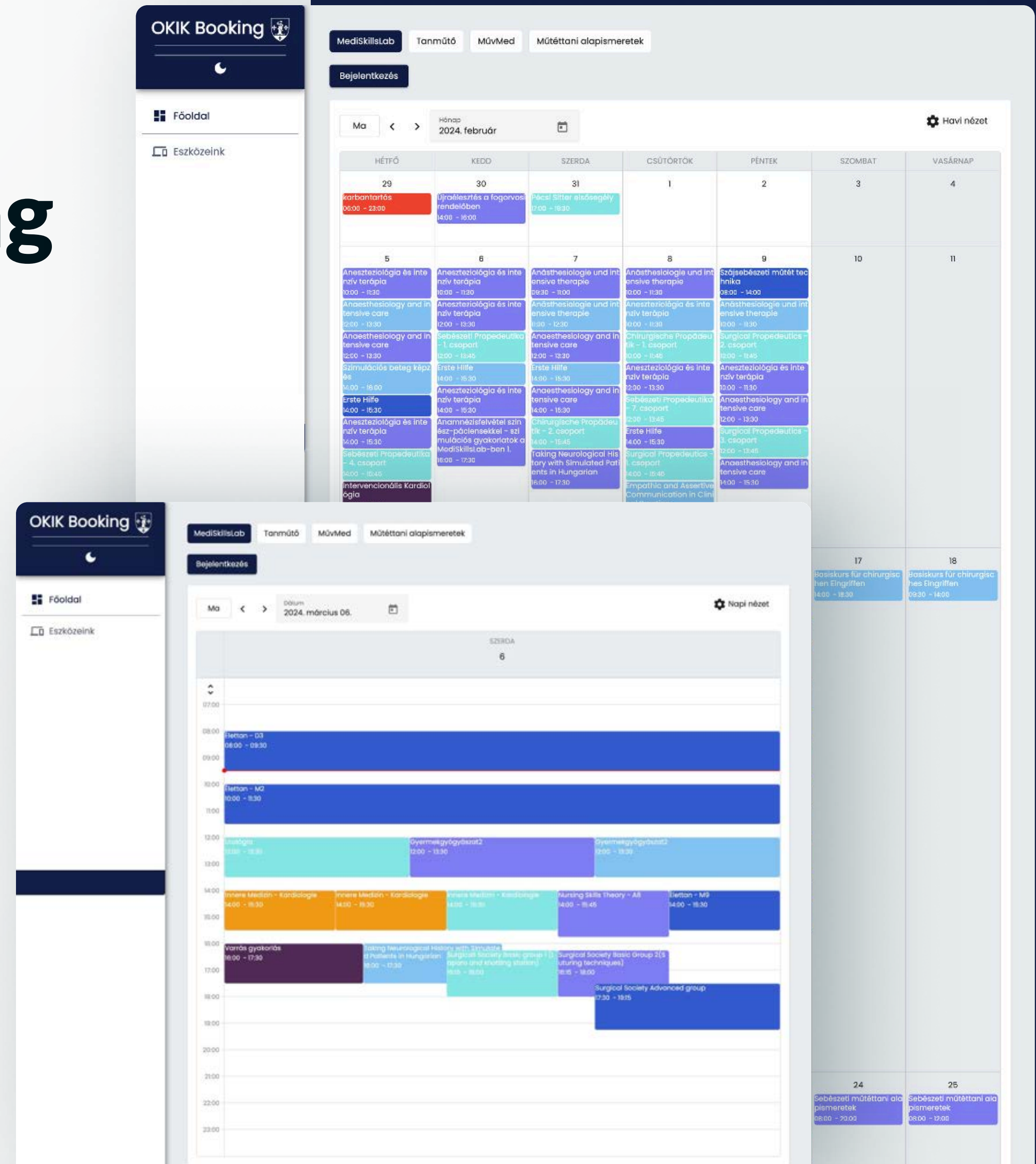- **OpenCV**
- **Typescript**

Read the paper

Medical Simulation Center's Room Booking Application

Software development

An online room booking application tailored to meet the specific needs and requirements of the institution. It empowers administrators to assign and manage equipment and facilities for each room seamlessly. Utilizing a calendar-based booking system, it allows setting precise booking periods and detailed reservation parameters with ease.

- **Typescript**
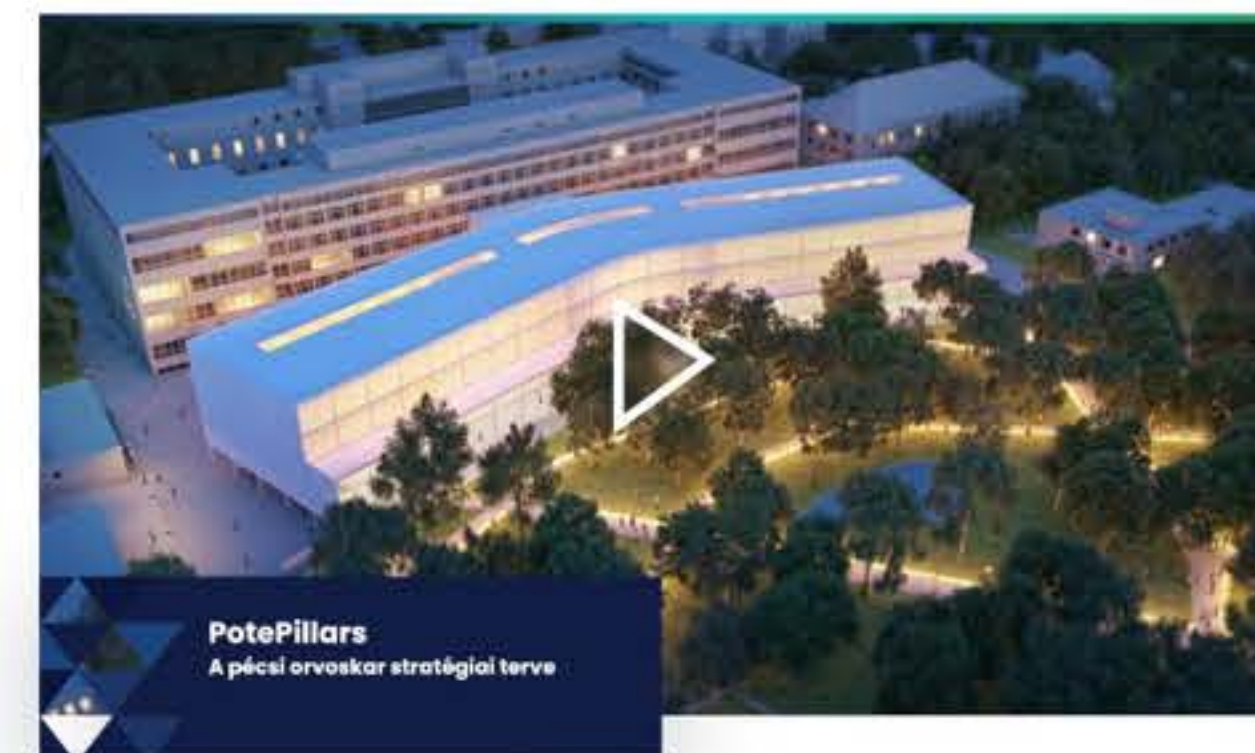- **Angular**
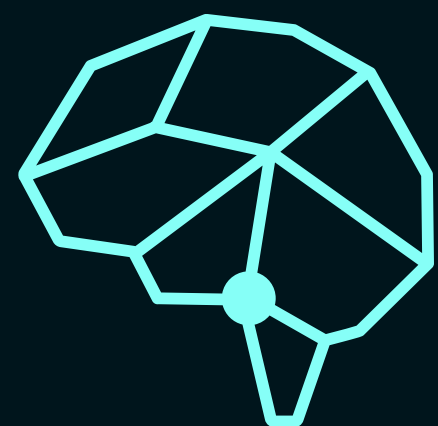- **Java (Spring)**
- **MySQL**

Website of the Faculty of Medicine - University of Pécs

Web application development

e collaborated closely with the University of Pécs Faculty of Medicine's development team to perform front-end enhancements on their website, with a strong emphasis on optimizing the mobile user experience. In recognition of these efforts, the site was honored as the "Website of the Year" in the education category by the Hungarian Marketing Association in 2021.

● **PHP (Laravel)** ● **MySQL** ● **Javascript** ● **CSS** ● **HTML**

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Let's elevate the future of healthcare together!

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