



**COMPUTER SCIENCE**  
UC SANTA BARBARA

**Teladoc**<sup>TM</sup>  
HEALTH

# B.R.A.D

**B**iomedical  
**R**esource  
**A**ssessment  
**D**iagnosis



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# 38x

Increase in telehealth services since  
the pandemic<sup>1</sup>

<sup>1</sup>McKinsey & Company, 2021



# 50%

of American doctors  
experience burnout due to  
documentation work <sup>1</sup>

<sup>1</sup>US National Library of Medicine, 2016

# Issues

01

Lack of  
Communication

02

Wasted Time

03

Underutilized  
Medical Data

# Solution: B.R.A.D

## Appointment Creation



**Assist:**  
Easy access to  
patient  
information

## Symptom Screening



**Efficiency:**  
Reduce  
workload of  
nursing staff

## Initial Diagnosis

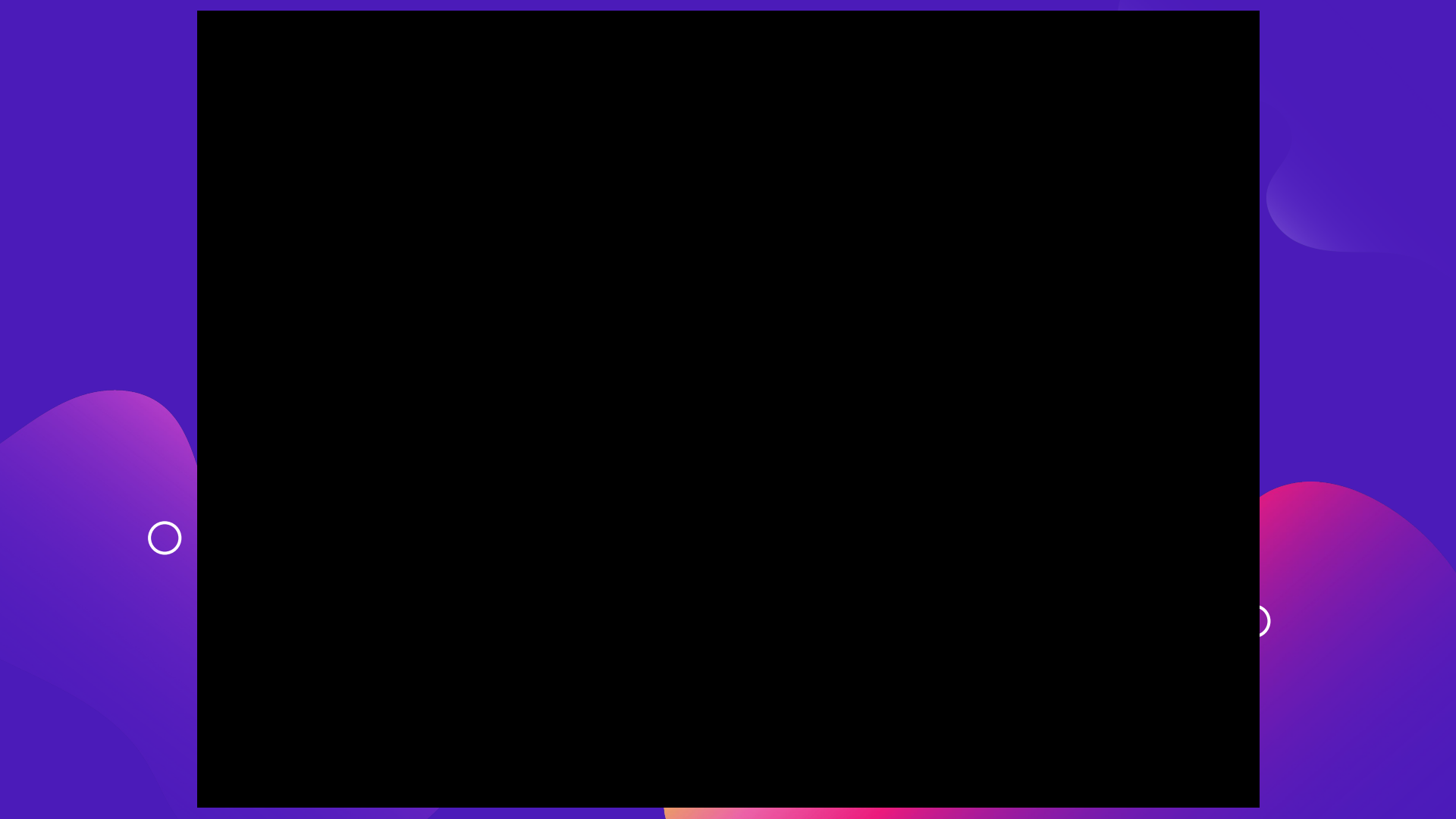


**Transparency:**  
Data-driven  
approach to  
making  
diagnosis

## Storage and Display



**Flexibility:**  
Edit diagnosis  
and  
asynchronous  
communication



The background is a solid dark purple. It features several large, organic, wavy shapes in shades of purple and pink. There are three small white circles scattered across the background: one in the top right, one on the left side, and one on the right side.

**Demo**

# Implementation Technologies



**Infermedica**

Initial Diagnosis



**Amazon Lex**

Chatbot Logic



**DynamoDB**

Storage



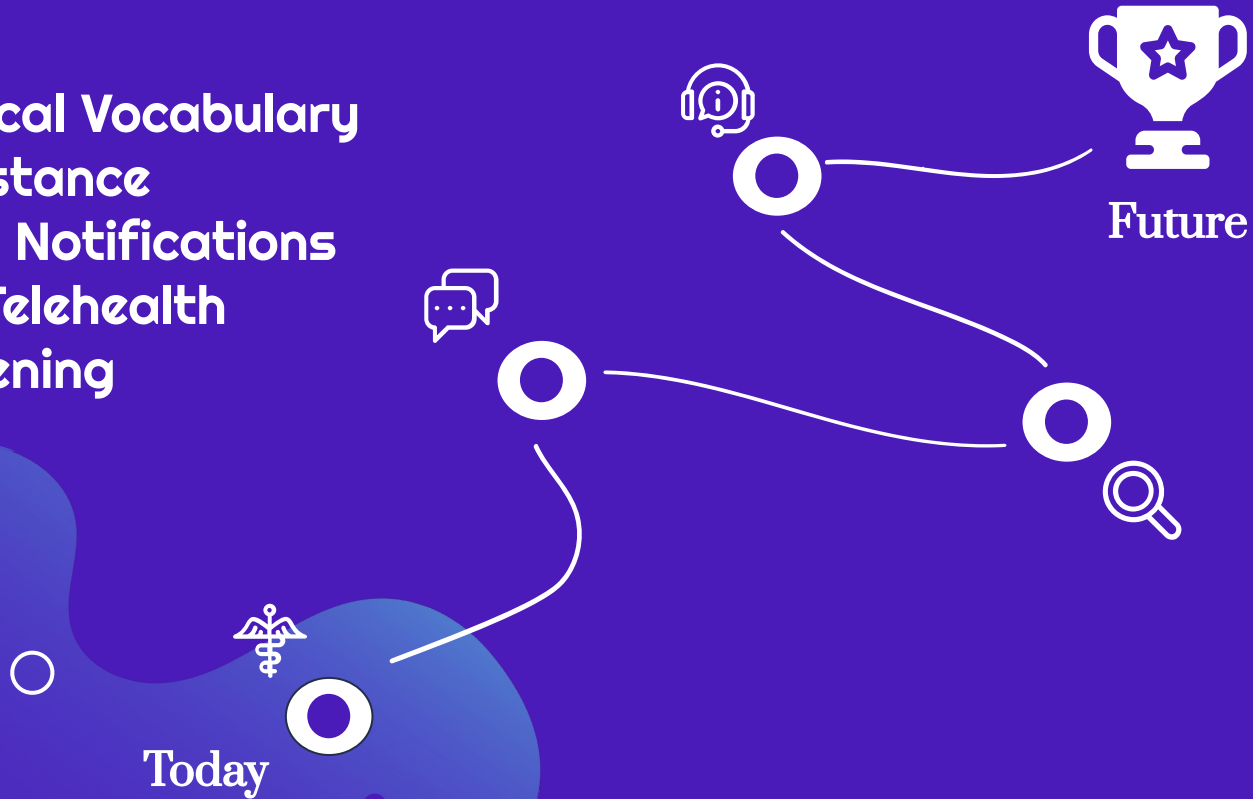
**NextJS**

Frontend &  
Backend



# What's next?

- **Medical Vocabulary Assistance**
- **Push Notifications**
- **Full Telehealth screening**



# B.R.A.D's Impact

○ Employs data to assist medical diagnosis

Increases transparency and efficiency in patient-physician relationships

Improves automation of routine medical services ○

# Thank you!



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The background features a dark purple gradient with several large, overlapping, organic shapes in lighter shades of purple and blue. Three small white circles are scattered across the background: one in the upper left, one in the lower left, and one in the lower right.

**Questions?**

# System Architecture

