



TELEHANCE

Improving Telehealth Consultations in Real-Time

In Partnership with **Teladoc**[™]
HEALTH

OUR TEAM



TANAY KOMARLU
CS Senior, Team Lead



SURYA PUGAL
CS Junior, Scribe



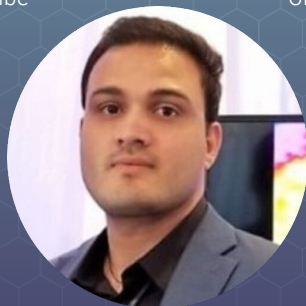
LU HAN
CE Senior



ALAN RODDICK
CS Senior



JOHN O'DONOVAN
Advisor



SUSHIL BHARATI
Advisor



JAVIER IPARRAGUIRRE
Advisor

OVERVIEW

01

PROBLEM VS. SOLUTION

Existing Problems with Online
Medical Consultations

02

IMPLEMENTATION

Tech-Stack/Frameworks Used

03

DEMO

See How It Works!

04

CHALLENGES/WHAT'S NEXT?

Scheduled Plans/Improvements
Going Forward



PROBLEM

#1: Consult Quality:

- Problematic Consults
 - Aggressive conversations: insults, personal attacks, sexual harassment.
 - Patient Drug seeking behavior
 - Doctor Malpractice issues
- Current Solution: Manual Review
 - Very hard to scale
 - Human error

#2: Consult Efficiency:

- Doctors
 - Difficult to scribe while asking questions
 - Loss of relevant medical information due to limited consultation time
- Patients
 - Receive insufficient clinical care



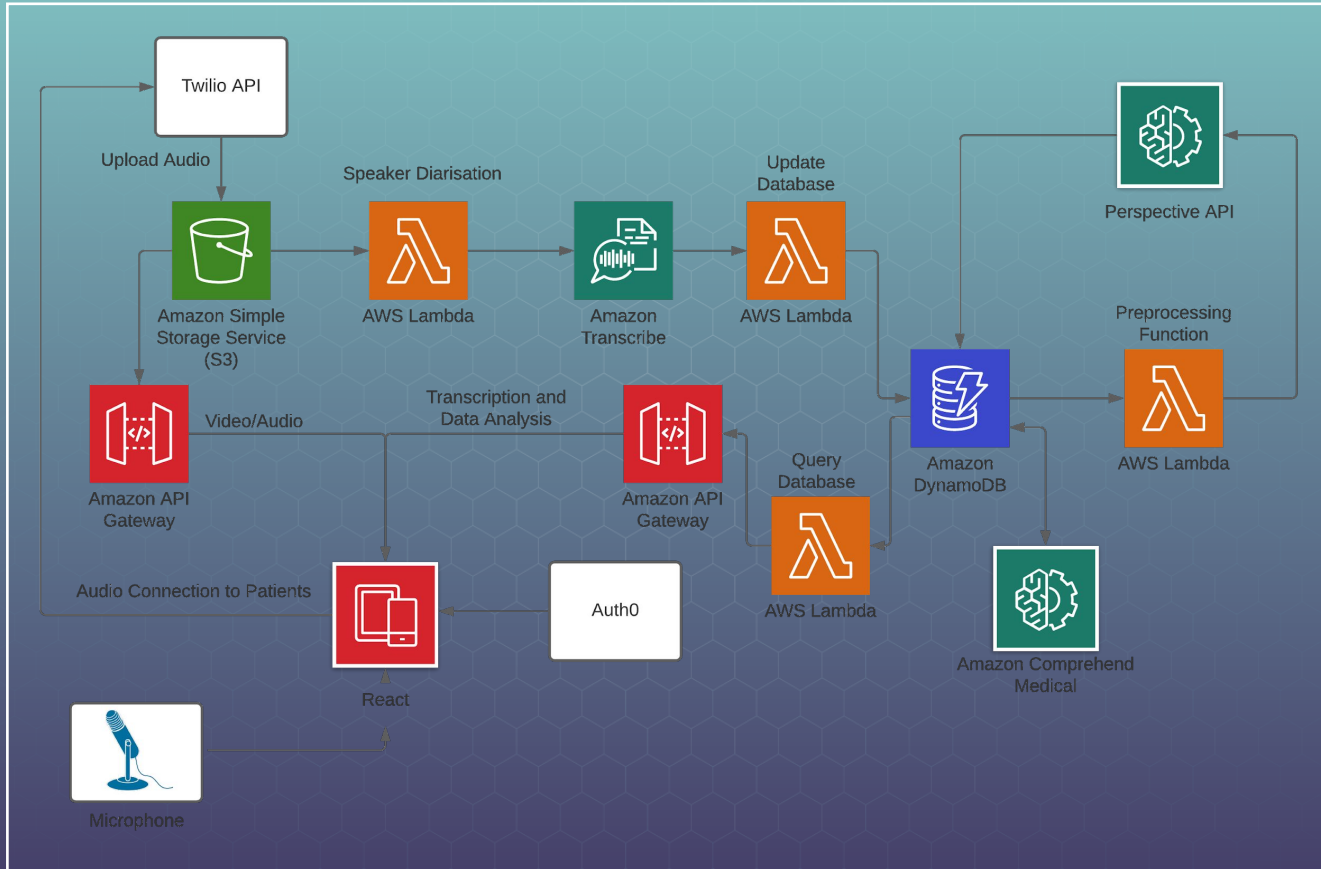
SOLUTION

- Flag conversations
 - Numerical scoring system used to assess consult quality
 - Highlight consults for internal review
- Streamline communication
 - Allow for consults to be initiated between doctors and patients
 - Obtain transcript of the conversation
- Develop consultation management system
 - Provide doctors additional means of documenting consultation
 - Provide admin additional means for oversight and transparency

DEMO



Implementation





Technical Challenges

- Initial issues with speech-to-text AWS Transcribe model
- Sparse Documentation regarding use of lambda functions in certain contexts
- Working with certain tools/frameworks for the first time
- Limitations when working with DynamoDB

WHAT'S NEXT?

MODEL ACCURACY

Improve accuracy of speech-to-text and toxicity flags



ADDITIONAL FEATURES

Automated Scribe via Amazon Medical Comprehend

UI/UX

Improve User Experience





Any Questions?