

**Success Story** 

# Radiology report assist with GenAl

Speech Recognition Generative Al

Summarization Medical Ontologies



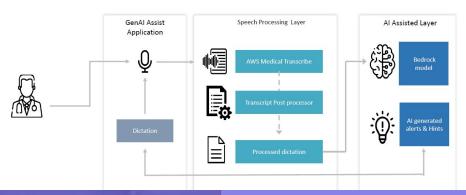
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## The Challenge

- Client is one of the largest outpatient medical imaging providers and largest physician radiology practices in the United States.
- Develop a solution that can assist the radiologists in effectively creating complete MRI L S Spine reports in an optimal and cost-effective manner to reduce their fatigue, improve efficiency and minimize rework.

## Solution(s) & Value Delivered







#### The Solution

Lead and delivered a Gen AI enabled solution that can ingest dictated radiologist notes and alert anomalies, errors and missing information

- Designed and developed an intuitive and user-friendly interface for radiologists
- Implemented GenAl algorithms to provide intelligent hints and suggestions for report improvement
- Integrated of AI models with the reporting workflow, and transcribe service for real-time dictation
- Rules based In context input to LLM prompt to ensure mandatory parameters for the relevant sections are mentioned in the report for completeness

#### The Outcome

- Prompt Engineering for Accuracy: Crafting effective prompts significantly impacted model performance. We iteratively designed prompts that encouraged radiologists to provide comprehensive notes, minimizing ambiguity.
- Voice-to-Text Integration: Converting dictated radiologist notes into accurate text required robust voice-to-text components. Leveraged state-of-the-art speech recognition models and optimized their performance to ensure reliable transcription.
- Real-Time Notifications: Timely alerts were crucial. Implemented real-time notifications to alert healthcare providers about critical anomalies or missing information, ensuring swift intervention and patient safety

# **Solution Highlights**

Piloted across select radiology practices with observed accuracy and time savings

Provided proof of concept and roadmap to scale the solution across the business

Established time savings involved in errors, re-work and radiologist fatigue



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# Thank You

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