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Revolutionizing Information Retrieval in Healthcare

with Generative AI Driven Clinician Assistant

About Client

A global healthcare company specializing in orthotic and prosthetic services, faced a common challenge in the healthcare industry: efficiently accessing and utilizing a vast amount of clinical data. Recognizing the need for streamlined information retrieval, the Clinician Assistant project was initiated. Leveraging a GPT-based model, this project aimed to empower clinicians to ask questions about clinical data, ultimately saving time and improving decision-making.

The Challenge

Time-consuming Data Retrieval

The extent of Time Spent: Clinicians were spending an average of 3 hours per day navigating various sources to retrieve patient-related information.

Impact on Productivity: This extensive time expenditure significantly reduced the time clinicians could allocate to direct patient care and decision-making. On average, each clinician was losing 15 hours per week in data retrieval, leading to a substantial impact on overall operational efficiency.

Data Fragmentation

Scattered Information: Vital clinical information was dispersed across multiple applications and unstructured documents, making it challenging for clinicians to access a unified view of patient data.

Extent of Fragmentation: Clinical data was distributed across 10 different applications, contributing to a fragmented and disconnected information landscape.

Impact on Decision-Making: The fragmented nature of data led to a 20% decrease in the accuracy of clinical decisions, as clinicians struggled to obtain a comprehensive and cohesive understanding of patient history.

Have A Question? Connect With Us Now

The Clinician Assistant project was driven by three primary needs

Quick Information Retrieval

Facilitate clinicians in finding information swiftly.

Enhanced Quality of Care

Reduce errors in clinical decisions to improve patient care.

Document Summarization

Provide summarization of clinical documents for better accessibility.

Elevating Healthcare Efficiency Through the Synergy of Generative AI and Unified Information Access

Unified Data Access

- **Centralization of Medical Information:** The Clinician Assistant successfully consolidated medical information scattered across disparate sources and applications into a centralized repository. This eliminated data silos and provided clinicians with a single access point for comprehensive patient information.
- **Reduction of Data Silos:** Data consolidation resulted in a 40% reduction in the time clinicians spent navigating multiple applications, contributing to a more efficient workflow.

Enhanced Accuracy

- **Extraction of Medical Insights:** The Clinician Assistant employed advanced Generative AI algorithms to extract relevant medical information from the consolidated data. This ensured a more accurate and data-driven decision-making process for clinicians.
- **Decision Support:** The Generative AI driven insights assisted clinicians in identifying patterns, trends, and critical information, contributing to a 25% improvement in the accuracy of clinical decisions.

Enhanced User Engagement

User-Friendly Interface: The Clinician Assistant featured a user-friendly interface designed to enhance user engagement. The interface was intuitive and tailored to the specific needs of clinicians, promoting ease of use.

Seamless Integration with MS Teams

Information Access: The Clinician Assistant seamlessly integrated with MS Teams, facilitated efficient and seamless access to patient information.

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Outcomes

The implementation of the Clinician Assistant resulted in significant benefits:

Turnaround Time (TAT) Reduced by 25%

The Clinician Assistant streamlined information retrieval processes, leading to a 25% reduction in turnaround time for clinicians. This improvement ensured that critical patient-related data was accessed and processed more swiftly, contributing to timely decision-making and response to patient queries.

Data Retrieval Time Reduced from Hours to Seconds

This dramatic reduction in data retrieval time significantly increased the time clinicians could allocate to direct patient care, improving overall workflow efficiency and allowing for more focused and informed interactions with patients.

Accuracy of Clinicians Improved

The Clinician Assistant's Generative AI driven insights and consolidated information contributed to a substantial improvement in the accuracy of clinicians. By providing relevant medical insights and reducing the chances of errors in decision-making, clinicians could make more informed and precise clinical judgments.

Patient Care Quality Enhanced

The positive impact on patient care quality was reflected in improved patient satisfaction scores, reduced likelihood of errors in treatment plans, and a more efficient and effective healthcare delivery process.

Technology Utilized

GPT-3.5 Model

Azure OpenAI Services

Microsoft Azure Cognitive Search