CASE STUDY

AI-Driven Healthcare Revolution: Personalized Care and Cost Savings Highlight Success Story

About The Client

Our client operates an extensive healthcare system with multiple hospitals and clinics across the tri-state area. They cater to a diverse patient population and provide high-quality, personalized care.

The Problem

The healthcare system faced several challenges in delivering personalized care and engaging patients effectively. This included:

- Fragmented patient data across multiple systems and locations, making it difficult to get a unified view of each patient's health history and needs.
- Lack of efficient tools for remote patient monitoring and virtual care, limiting access for patients who couldn't easily visit in person
- Inconsistent patient engagement and education lead to lower adherence to treatment plans and poorer health outcomes.

The Approach

The TVS Next team proposed a comprehensive solution that leveraged data, AI, and virtual health technologies to address these challenges:

Unified Patient View: We implemented a data integration platform that securely aggregates patient data from various sources, including Electronic Health Records (EHRs), claims, and remote monitoring devices. This created a centralized, longitudinal view of each patient's health history and risk factors, ensuring data security and privacy.

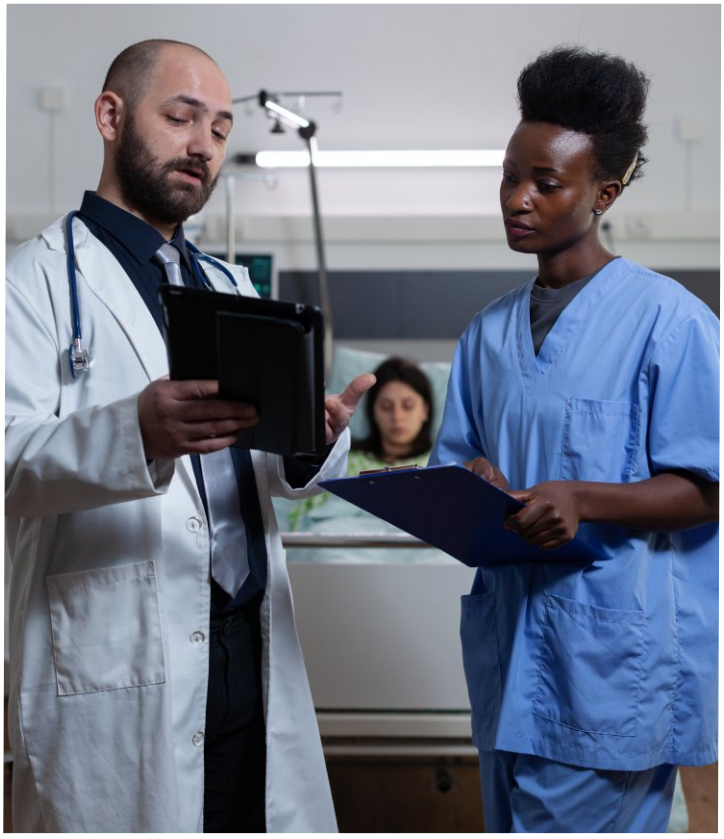
Personalized Access and Engagement: We developed a patient portal and mobile app that provided customized health information, reminders, and education tailored to each patient's needs and preferences. The app also enabled virtual visits and remote monitoring, improving access to care.

Services

Generative AI
Data Modernization & Management

Technology

- Talend, Informatica
- Amazon Redshift, Google BigQuery
- React, Angular, Flutter
- Zoom, Doxy.me
- Wearable device integrations
- TensorFlow,PyTorch
- Amazon SageMaker, Google AI Platform, Microsoft Azure ML
- AWS, Google Cloud, Microsoft Azure
- Docker, Kubernetes
- Monitoring: Prometheus, Grafana, ELK stack



AI-Powered Insights: We applied machine learning algorithms to the unified patient data to generate predictive insights and risk stratification. This allowed the healthcare system to identify high-risk patients based on a combination of factors such as past medical history, current health status, and lifestyle. We intervened early to prevent complications proactively, ensuring the accuracy and reliability of our AI-powered insights.

The Process

Data Integration: We worked closely with the client's IT team to connect various data sources and establish secure data sharing protocols. Their expertise and collaboration were instrumental in ensuring a smooth and secure data integration process, demonstrating their technical capabilities and readiness for such a solution.

Platform Development: Our team built the patient portal and mobile app, integrating virtual care and remote monitoring capabilities.

AI Model Training: We trained machine learning models on the unified patient data to predict risk factors and identify high-risk patients.

Pilot Testing: We conducted pilot tests with a select group of patients to refine the platform and gather feedback.

Full Deployment: After successful pilot testing, we rolled out the platform to all patients within the healthcare system.

The Result

Our client has used data-driven, AI-powered technology to revolutionize patient care, providing personalized, proactive, and accessible treatment. This has led to improved health outcomes and cost savings, marking a significant milestone in the journey toward a more efficient healthcare delivery system.

Key Outcomes

25%
increase in patient engagement and satisfaction

20%
reduction in hospital readmissions for high-risk patients

15%
improvement in medication adherence rates

30%
increase in virtual visits and remote monitoring, improving access to care

$2.5 Million
in cost savings from reduced hospitalizations and complications