CitiusTech | Case Study

HEALTHCARE
LIMITLESS

Standardized the MLOps Process and Reduced Deployment Time for a Leading Medical Technology Company

Client Requirement

Our client is a leading medical technology company that provides consumer devices for managing diabetes. They wanted to provide personalized insights to patients and caregivers using AI/ML-driven digital services.
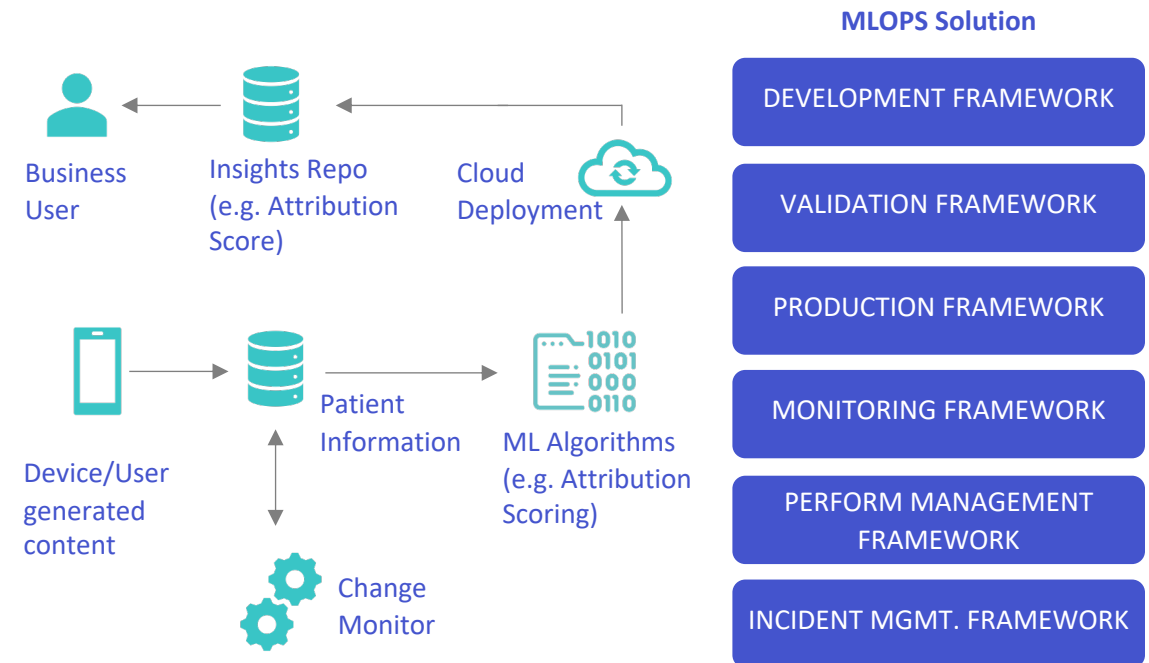
The client required an end-to-end MLOps framework to operationalize a customer attrition model for insulin pumps in the short term, with a foundation for future regulatory-compliant MLOps platforms and new algorithms in the long term. They partnered with CitiusTech to establish an enterprise MLOps framework for their devices.

Value Delivered:

- Achieved **reduced deployment time** for existing data science models.
- **Standardized the MLOps process** with minimal dependencies.
- Provided a **model monitoring framework for tracking drift and performance** and managing models to drive business outcomes.
- Enabled the client to **provide personalized insights to patients and caregivers** using AI/ML-driven digital services.
- Improved patient outcomes and satisfaction.

CitiusTech Services:

- Created an MLOps core team to design, demonstrate, and implement an architecture for model development, deployment, monitoring, and research operations.
- Reviewed the current model development pipeline in pre-production and production environments, refining it to cater to multiple models.
- Provided a unified dashboard for reviewing and tracking model and infrastructure performance using predefined, mutually identified performance metrics.
- Implemented a strategy in staging and production to enable automated re-training of models.
- Reviewed the existing framework for CI/CD integration and built an automated deployment pipeline.
- Standardized and operationalized customer research functions to reduce inefficiencies and scale across models

MLOPS Solution

Business User → Insights Repo (e.g. Attribution Score) → Cloud Deployment

Device/User generated content → Patient Information → ML Algorithms (e.g. Attribution Scoring)

Change Monitor

- DEVELOPMENT FRAMEWORK
- VALIDATION FRAMEWORK
- PRODUCTION FRAMEWORK
- MONITORING FRAMEWORK
- PERFORM MANAGEMENT FRAMEWORK
- INCIDENT MGMT. FRAMEWORK

■ CitiusTech

Our vision is to inspire new possibilities for the health ecosystem with technology and human ingenuity. At CitiusTech, we constantly strive to solve the industry's greatest challenges with technology, creativity, and agility. Together with the world's leading Healthcare and Lifesciences organizations and our partners, we aim to accelerate the transition to a human-first, sustainable, and digital healthcare ecosystem.

Get in touch
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