
Role: Data Analyst | Industry: Pharmaceutical

Customer Engagement Analytics

Dynamic Radar System for Physician Engagement Optimization

Project Timeline: September 2021 - February 2022

Business Challenge & Solution

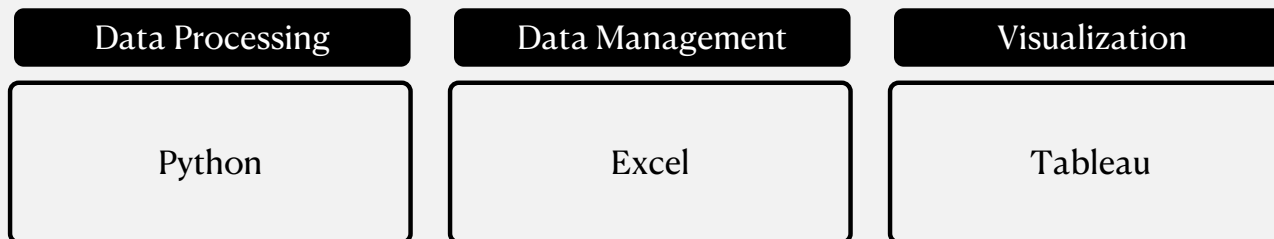
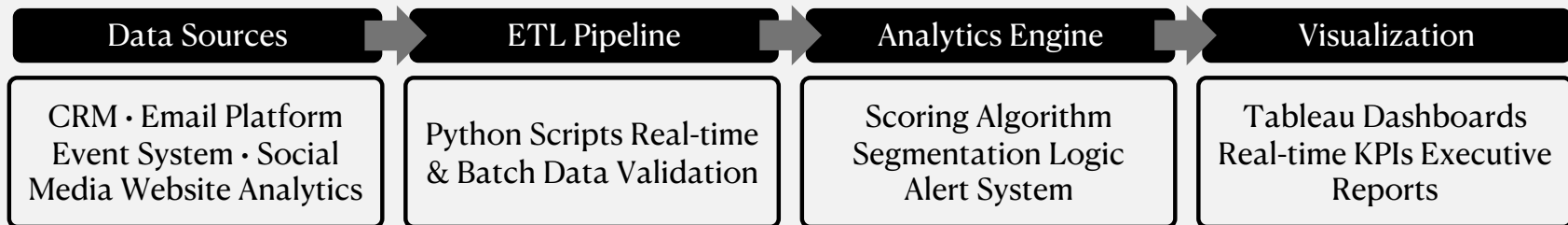
Key Challenges

- **Manual Lead Identification:** Inefficient process to identify high-potential physicians from 18,000+ database
- **No Real-Time Monitoring:** Lack of campaign performance visibility across multiple channels
- **Reactive Approach:** No early warning system for declining physician engagement
- **Siloed Data:** Disconnected systems preventing holistic customer view

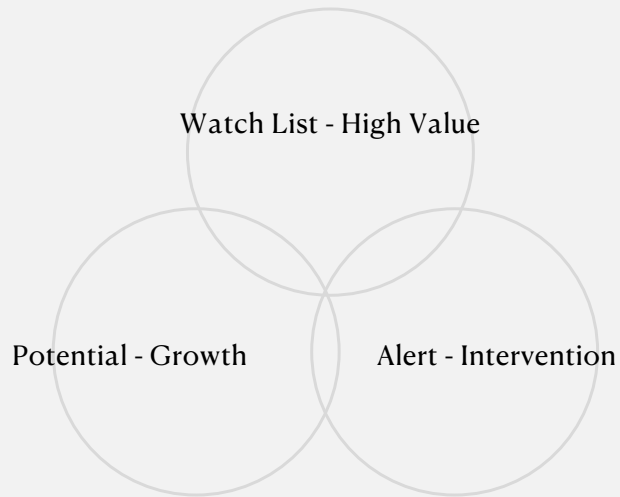
Our Solutions

- **Dynamic Engagement:** Radar Real-time scoring and segmentation system for proactive management
- **Multi-Channel Analytics:** Integrated dashboard tracking performance across all touchpoints
- **Predictive Alerts:** Early warning system with automated intervention triggers
- **Unified Data Platform:** 360-degree physician view enabling data-driven decisions

System Architecture & Technology Stack



Dynamic Engagement Radar System



Scoring Components

Engagement Score Formula: $\text{Score} = 0.3 \times \text{Recency} + 0.25 \times \text{Frequency} + 0.25 \times \text{Depth} + 0.2 \times \text{Diversity}$

Alert Triggers

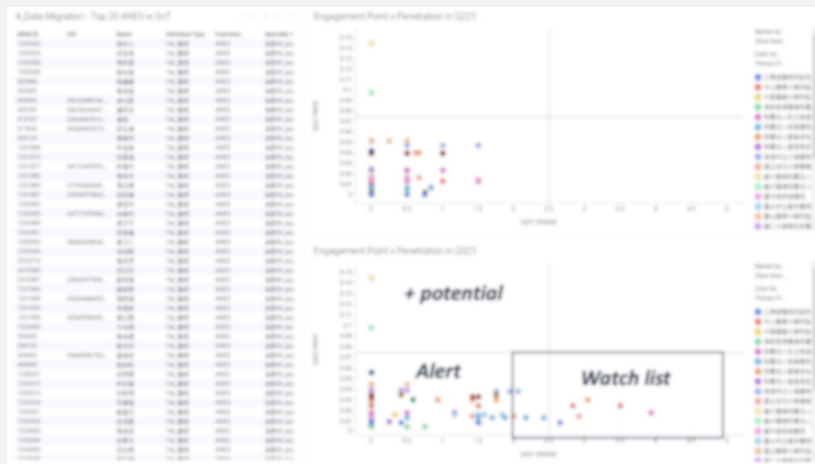
- 30% score decrease in 30 days
- No activity for 45+ days
- Unsubscribe/complaint events
- 50% reduction in active channels

Key Insight: Early intervention prevents 80% of physician disengagements

Analytics Dashboard & Insights

Real-Time Performance Monitoring

Interactive Scatter Plot - Physician Positioning



Engagement vs Penetration Analysis



Business Impact & Quantified Results

300+
High-Potential Physicians Identified

40%
Social Media to Event Conversion

120
Physicians Successfully Converted

25%
Marketing ROI Improvement

Data-Driven Decision Making

Transformed intuition-based marketing into evidence-driven strategy

Proactive Engagement Management

Early warning system prevents customer churn and maximizes retention

Optimized Resource Allocation

Focus marketing spend on highest-converting channels and audiences

Scalable Growth Framework

Reusable methodology supporting business expansion without proportional cost increase

Implementation Approach & Methodology



Data Integration

ETL pipeline connecting 5+ source systems with real-time and batch processing capabilities

Scoring Algorithm

Multi-dimensional engagement scoring with weighted components and peer benchmarking

Segmentation Logic

Dynamic three-tier classification with automated reassignment based on behavioral changes

Real-Time Dashboard

Interactive Tableau dashboard with drill-down capabilities and automated alerting

Key Learnings & Future Roadmap

Data Quality is Critical: 95% completeness threshold essential for reliable insights

User-Centric Design: Stakeholder feedback drives successful adoption and usage

Cross-Functional Collaboration: Marketing and analytics partnership maximizes impact

Continuous Optimization: Regular model retraining maintains accuracy and relevance

AI-Powered Insights

Machine learning for predictive modeling and automated optimization

Real-Time Personalization

Dynamic content recommendations based on individual physician preferences

Advanced Attribution

Multi-touch attribution modeling for comprehensive campaign impact assessment

Mobile Application

Dedicated mobile app for field teams with offline capabilities