emudhra
Trust Delivered

emStream

AI Driven Big Data and Predictive Analytics

Advanced AI driven Predictive Analytics Platform

C level executives of medium and large sized organizations struggle to make decisions and experiment with new strategies due to lack of tools that can help predict scenarios in advance.

It's not because of non-availability of data, sometimes there's too much data or just the nature of data is numeric leaving the human sentiment out of the equation.

Built on a robust AI engine with Deep Learning and Machine Learning capabilities, emStream is eMudhra's Apache Spark technology driven analytics engine with uses cases cutting across industries as diverse as B2C, manufacturing, retail, insurance, banking and financial sector.

Run data pipelines and ETL

emStream can significantly optimize the data pipeline setup and maintenance, and enable operational reporting in real-time. In addition, enterprises can build a maintainable replication mechanism for enabling deeper analytics later, and also have both transactional and analytical data available to further scale up and out.

Powerful data aggregation

emStream has ready feeds from popular social media platforms. However, it is capable of data ingestion from excel, email servers, SMS servers, websites, blogs, RSS feeds, video/image input, and even relational databases such as ERP and CRM within your organization. You define what you want, and emStream gets the data (keeping in mind data privacy regulations of course!).

Abundant data sources, easy set-up, distributed processing, advanced NLP, Predictive Analytics and more...

Distributed computing using Apache Spark

With support for data ingestion across a range of data sources, emStream's core engine runs on an advanced, in-memory Apache Spark computing engine that delivers 100x the performance of Apache Hadoop for your workloads. This enables it to seamlessly run Natural Language Processing and Predictive Analytics tasks on unstructured, semi-structured and structured data, and deliver business intelligence with lighting speed.

Run Machine Learning with No coding

Using ready to use algorithms, organizations can run predictive modeling to ascertain the success or failure of any business scenario or strategy before executing one.

NLP built on deep learning frameworks

Over a decade of work has gone into our NLP engine which is fully proprietary. A combination of domain ontology on top of data helps us establish sentiment to specific attributes with high accuracy. Apart from a plethora of features that our NLP enables us to provide, we even offer contextual NLP where we expand graph theory to resolve entities against known databases.

Our NLP driven analytics engine can be used for:

• Sentiment, Problem & Intent Analysis
• Topic Identification
• Theme Extraction
• Auto Summarization of Text
• Verb Argument Extraction
• Extraction of Events

Benefits

■ Leverages open source with significantly lower TCO

■ Quick deployment on-prem or on cloud

■ Uses latest technologies in NLP and ML

■ Ability to support with data scientists, ML programmers for building use cases

Customer Success Stories

■ Top universities, B2C companies and CEO's of Investment firms use emStream for predictive modeling

■ Large public sector bank uses emStream for risk monitoring across corporate borrowers

Technical Details

Data Aggregators

- Local Data Adapter for Structured and Semi-structured Data Sources
  - Semi Structured – CSV, JSON, XML, HDFS, Excel
  - Structured – Databases like Oracle, MySQL, etc
- Social Adapters for Social Media Data Sources
  - TW, FB, LinkedIn, Youtube, Instagram
- Forums Adapter and URL Crawler for Unstructured Data Sources
  - Blogs, Boards, News

Uses Apache Spark's ETL capabilities for analyzing

- Named Entities
- Sentiments
- Topics

Database Layer

- mongoDB
- elastic

Distributed In-memory Analytics

- Classification
- Clustering
- Association
- Predictive Analysis
- Anomaly Detection

Use Cases

Universities/Education Institutions

- Monitoring student, faculty, parent sentiments
- Predicting student success
- Predicting student churn

Financial Services

- Fraud analytics aimed at loan fraud mitigation
- Consumer analytics focused on credit card churn
- Flagging off probable loan and account applications based on sentiment analysis
- Behavioral analytics

Manufacturing

- Risk management
- Fault prediction and preventive maintenance
- Demand forecasting and inventory analysis

Healthcare

- Predicting volume of claims
- Flagging off claims requiring scrutiny
- Predicting premium revenue
- Creating risk scores for diabetes, cancer, etc.
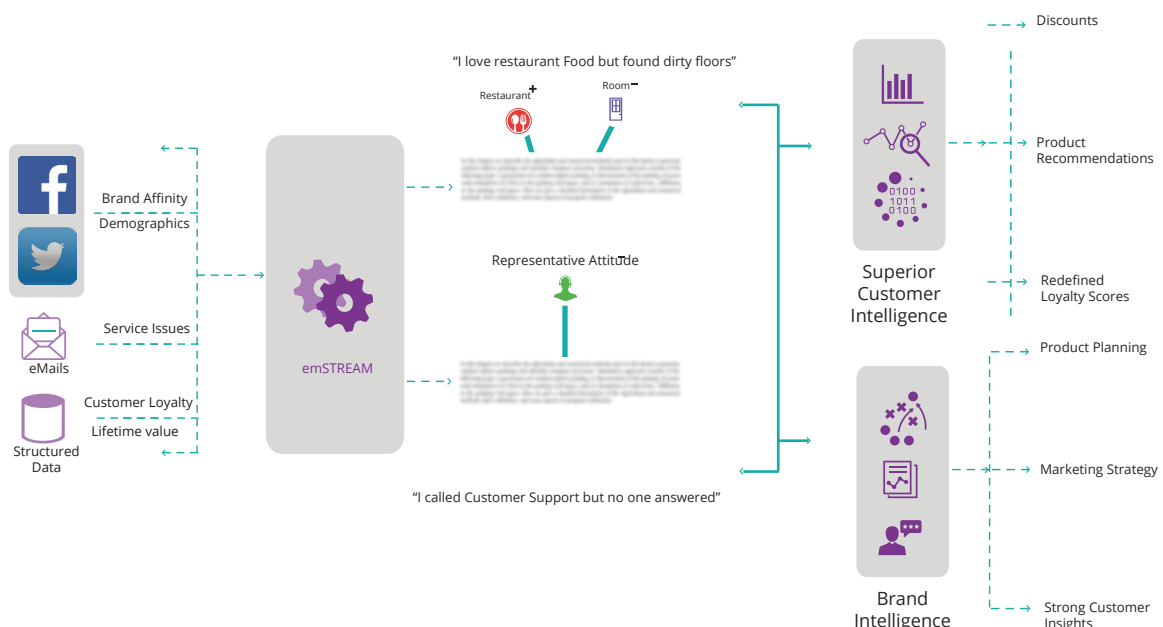- Sending real-time alert about patient condition

B2C

- Individual targeted offers for retail/eCommerce companies
- Brand monitoring
- Predicting customer churn, and brand or location success

IoT Analytics

- Consumer product usage analysis
- Video analytics for surveillance and safety
- Predictive maintenance and reliability analysis
- Anomaly detection & diagnosis

Sample flow - Predictive Analytics for Customer Churn

"I love restaurant Food but found dirty floors"

Restaurant   Room

Representative Attitude

"I called Customer Support but no one answered"

Brand Affinity
Demographics
Service Issues
eMails
Customer Loyalty
Lifetime value
Structured Data

emSTREAM

Discounts

Superior Customer Intelligence

Product Recommendations

Redefined Loyalty Scores

Product Planning

Marketing Strategy

Brand Intelligence

Strong Customer Insights

About eMudhra:

Much like the name, which is an embodiment of the seal of authenticity in the electronic or digital world, eMudhra is a cyber security solutions company and a trust service provider that is focused on accelerating the world's transition to a secure integrated digital society. With presence in 5 continents and a global delivery center in Bengaluru, India, eMudhra is empowering secure digital transformation of over 45 global banks, several Fortune 100 customers and thousands of SMEs.