

# Artificial Intelligence as a Service (AlaaS) for Healthcare

From data to accelerated healthcare outcomes through simple, repeatable, scalable Artificial Intelligence and Machine Learning (AL/ML) models

Artificial Intelligence (AI) has become an inevitable tool of innovation in healthcare, progressing from being a nice-to-have, to a must-have. GS Lab | GAVS believes in harvesting the power of Advanced Analytics and AI for smart healthcare operations. GS Lab | GAVS' Artificial Intelligence as a Service (AlaaS) is focused on leveraging AI to improve the holistic health of patients and to drive better health outcomes through preemptive care, while keeping healthcare costs low.

# GS Lab | GAVS' AlaaS Framework for Healthcare



### **Domain**

Identification of clinical and non-clinical areas of impact

**Providers** – Clinical, Operational, and Financial **Payers** – Operational and Financial

**Life Sciences** – Diagnostics, Clinical Trials (CT), Patient Monitoring



# **Data Integration & Transformation**

Ingestion and cleansing of structured and unstructured data

- ★ Billing Data
- ★ Healthcare Claims Data
- ★ Clinical Data
- ★ Financial & Operations Data

- ★ Demographic Data
- **★** IoMT
- ★ SDOH



### **ML Modules**

Application of out-of-the-box and customized ML algorithms and models

- **★** Statistical Methods
- **★** Supervised Learning
- ★ Mathematical Modelling

- **★** Simulation
- \* Relationship Mining
- **★** Clustering



# **ML** Objectives

Derive intended outcomes such as prediction, optimization, etc.

- **★** Predictions
- **★** Recommendation Systems
- **★** Decision Support Systems

- **★** Optimization Systems
- $\bigstar \ \mathsf{Stratification} / \mathsf{Segmentation}$
- **★** Anomaly Detection



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### **Business Outcomes**

Gain actionable clinical and non-clinical insights

- **★** Denials Management
- **★** Optimal Diagnosis
- ★ Risk Categorization

- ★ Early Clinical Interventions
- ★ Faster Enrollment (CT)

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# AI/ML Use Cases for Providers



Care Management

- · Precision Dosing
- Text Analytics for Disease Diagnosis
- Hospital Acquired Infection (HAI) Identification
- Risk Stratification
- Cancer Diagnosis
   Optimization
- Physician Incentive Scorecard



Revenue Cycle Management and Supply Chain

- Denial Management
- Procure to Pay
- · Charge Review



Value Based Care

- Re-admission Reduction
- Health Inequalities
- LOS Reduction

# AI/ML Use Cases for Payers



Member and Care Management

- Member Self-Service
- Agent Augmentation
- Population Health
- Health Inequalities



**Claims** 

- Fraud Detection
- Patient Financial Experience
- Claims Adjudication



Other Use Cases

- Simplifying Broker Experience
- Rapid Document Digitization with OCR

# AI/ML Use Cases for Life Sciences



Drug Discovery and Development

- Patient Stratification
- Site Selection and Patient Recruitment
- Diagnosis and Disease Identification



Sales and Marketing

- Patient Engagement
- Healthcare Provider Engagement



Regulatory Compliance

- Advancing Compliance with Regulations
- Optimization of Submission Dates



Pharmacovigilance

Drug-Event Association



Manufacturing and Supply chain

- Demand Forecasting and Supply Planning
- Network Optimization
- Predictive Maintenance

Note: Use cases listed here are only a representative set. The actual use cases are arrived at based on customer needs.

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# D3 Delivery Methodology for AlaaS

### **DISCOVER**

- Discuss with stakeholders to understand expected outcomes
- Validate data, processes, technology for business areas identified
- · Assess data maturity
- Identify system integrations required

### **DEFINE**

- Identify most suited AI model for each business area
- Identify required datasets for model training and validation
- Perform required data analysis and data cleansing
- Develop system integration points/interfaces
- Customize for optimal results

### **DELIVER**

- Test the model with relevant testing datasets
- Deploy required integration points/interfaces
- Train the Al model, analyze results, and finetune for accuracy
- Go-live

# AI/ML Accelerators



AI/Analytics-led HealthIT
Enablement to foster
disruptive innovation in
healthcare and nurture
proficient, healthcare-ready
AI/ML technologists



Proprietary AIOps Platform to drive healthcare service reliability and zero clinical interruptions through efficient IT operations powered by AI/ML



Collaboration with premier academic institutions like Indian Institute of Technology Madras (IITM) for AI/ML thought leadership and PoC development

# gslab | GƏVS

GS Lab | GAVS is a global technology company focused on creating business impact for its 200+ customers across the USA, Europe, the Middle East, and APAC. It offers digital product engineering, AI-led managed services, and digital transformation services to customers across BFSI, healthcare, communications, and high-tech segments. With 4000+ technologists and a strong talent grooming engine, it is a trusted growth partner to its customers.

The company focuses on deep tech engineering skills, innovative win-win business models, and customer success. Its IPs, such as ZIF<sup>TM</sup>, zIrrus, Rhodium, and zDesk, help accelerate technology adoption and reduce inefficiencies in operations.

For more information on how GS Lab | GAVS can help solve your business problems, write to healthcheck@gavstech.com

visit us at www.gavstech.com/healthcare