Intelligent artifacts

A Force Multiplier for Mission Success

AI/ML & Reasoning solutions for trusted outcomes.

ABOUT US

Intelligent Artifacts provides prescriptive machine intelligence solutions for the most demanding problems while optimizing understanding and proactive actions. IA's intelligence platform is modular, flexible, cost-effective, and scalable for multi-domain operations, enhanced situational understanding, and real-time decision support to drive mission success.

THE GAIuS PLATFORM

Intelligence Engine is part of a solution selected by 10 Combatant Commands as the #1 Technology

Understandable
Fully explainable predictions and interpretable internal processes.

Flexible
Easily adapts to meet new mission needs and a user can edit or delete input records without retraining.

Real-time Lifelong Learning
Dynamic and adaptable future-proof system does not stagnate due to outdated data.

Data Fusion
Employs a universal input format to ingest any data type from any source.

Bias Free
Does not require up-front human involvement; no input data modeling.

Simple Integration
A range of deployment options that render problems of scale obsolete.

Verifiable & Certifiable
Traceback from predictions to original data, adheres to software regulations and open architecture standards.

Cybersecure
No executable code; anomalies and zero-day threats can be identified and mitigated automatically or with human involvement.

THE DIFFERENCE

Low Resource Utilization
One GAIuS™ Cognitive Processor does the work of an entire Neural Network (NN) and does not require GPUs or a lot of computing power to produce high-quality results.

Missing Data
GAIuS pattern matches symbolically. Symbols are flexible. NNs are rigid and cannot ingest data without all numeric values intact.

Sparse Data
Our solution is analytical and does not need many examples (or non-examples) to identify something it has previously learned. NNs are statistical and need thousands of examples for training.

THE USER VALUE

- ▶ 30 - 60% reduction in total ownership costs
- ▶ High-volume content triage and fusion
- ▶ Sensor optimization and performance evaluation for complex systems
- ▶ Verifiable information
- ▶ Predictive and proactive response options
- ▶ Secure information generation
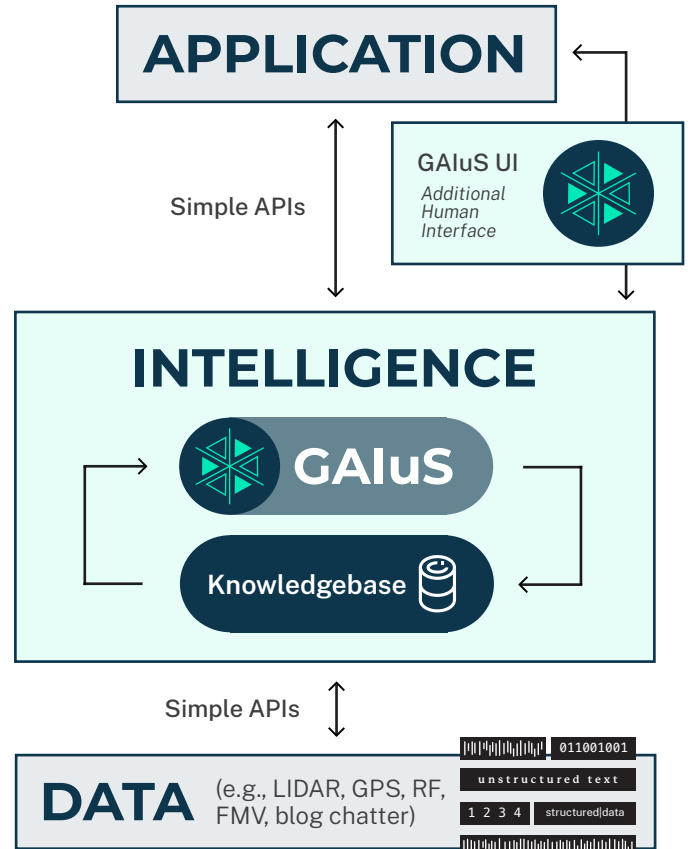
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TRUST IN AI

Our symbolic, analytical, and connectionist platform enables Artificial Intelligence/Machine Learning and Reasoning (AI/ML/R) to support a multitude of use cases, handle multi-modal data, and deploy seamlessly, even at the edge. Our compliance-assured AI/ML/R offering is a trustworthy, transparent, and effective solution for mission and safety-critical applications.

TECH BENEFITS

- A range of deployment options for ultimate scalability
- Loosely-coupled Intelligence layer
- Commercialized development platform
- Adherent to open architecture standards
- Future proof system
- Data and network agnostic, solves any use case
- Autonomous with scalable human involvement
- Reduces noise in data

- Architecture flexibility, simple APIs and user-defined mission tasks
- Low SWaP-c analytical tool
- Eliminates bias, no input data modeling
- Open-source universal input format
- Small-footprint knowledgebase at the edge
- Information assurance within AI engine
- Minimal training data requirements
- Resolves unknowns, anomalies, and ambiguities

APPLICATION

GAIuS UI
Additional Human Interface

Simple APIs

INTELLIGENCE

GAIuS
Knowledgebase

Simple APIs

DATA (e.g., LIDAR, GPS, RF, FMV, blog chatter)

011001001

unstructured text

1 2 3 4   structured|data

System Value: Loosely coupled **open architecture** scalable solution for maximum flexibility.

APPLICATION AREAS

- Multi-domain operations
- Prescriptive sensor tipping & cueing
- Dynamic Tasking
- ISR - Increased situational understanding
- Optimized COA Evaluation
- Agile Logistics
- Pattern-of-life Predictions
- Edit and Trace features leveraged for continuous updating ad validation of information down to root data
- Resolution of unknowns, anomalies, and ambiguities
- Sensor Fusion- Maximize across disparate systems and data feeds

- Sensor performance validation
- Command & Control - Rapid decision-making and execution
- Predictive Maintenance support at the tactical edge
- Machine Vision - Object Detection
- Cyber, zero-day threats and anomaly detection with automated responses
- Can be easily modified to meet new requirements and mission needs
- Degraded and reconstituted operations
- Reduced cognitive load for decision makers and end users

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