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Mission critical artificial intelligence... when you need it

Tackle your challenge for intelligence in real time with supervised and unsupervised learning. As the engine that drives Brighterion technology, Smart Agents technology overcomes the limits of legacy machine learning by adapting and updating in real time with every new piece of data, promising you the most relevant information.

Accessing mission critical data can be the differentiator in preventing account takeovers, insider trading, money laundering or cyber terrorism. Be confident that your intelligence is current, reliable, and from a range of sources. Brighterion's patented Smart Agents create a robust profile of operations with unprecedented benefits.

Benefits of Brighterion's AI technologies

Comprehensive – End-to-end, multi-use platform accepts any data type or format, serving as a central enterprise-wide hub, drawing together intelligence from siloed, disconnected systems to create a 360-degree view.

Any data, any format – Automatic uploads from multiple sources, in any format, eliminating the need for manual data preparation and cleansing.

Data enrichment – Save time and money with automatic data enrichment.

Lightweight, fast and scalable – A proprietary file and memory management infrastructure enables less than 10 milliseconds in response time for billions of events per month on a single server.

Reduced IT investment – No databases are required, lowering the overall total cost of operation.

Instant ROI – Fully deployed in 6-8 weeks with Brighterion's proprietary AI Express. Continually evolving models result in significantly lower operational and modeling costs.

Accurate – Dramatically fewer false-positive rates in head-to-head comparisons with legacy financial crime scoring models.

Future proof – Models are created with a blend of technologies, significantly improving performance and model lifespan, compared to vendors who leverage single technologies.

Designed for your critical mission

Empower your people to focus on day-to-day operations, knowing you have robust scrutiny on your organization's security. Rely on tools personalized for your business:

Payments – Identify channel fraud, reduce friction, get real-time insights.

- Reduce and prevent fraud, including payment and merchant fraud, in real time.
- Identify and prevent identity theft and card-not-present fraud.
- Detect data breach attempts in real time.
- Identify increased potential profitability.
- Prevent channel fraud while reducing friction for customers.
- Future proof your platform for new data types, systems and regulations.

Compliance – Prevent money laundering and terrorism financing, apply global sanctions.

- Prevent, detect and report money laundering, terrorism financing and other illegal activities.
- Monitor suspicious transactions, then evaluate and adjust the profiles of high-risk customers in real time.
- Manage anti-money laundering and card-not-present fraud across products, business lines and geographies.
- Meet and exceed regulatory obligations and expectations.
- Explain rationale for decision-making and reasoning to regulators and business users.
- Reduce false positives in real time, preventing need for manual monitoring of every alert.

Financial markets – Stop advanced attacks and financial market manipulation.

- Predict and detect insider trading.
- Identify unauthorized transactions by insiders.
- Detect manipulation or gaming of trading algorithms.
- Predict market slippage.
- Detect algorithmic trading for performance incentives.

Security and defense – Detect and stop terrorism, human trafficking and cyber threats.

- Predict and detect insider/external threats and data breaches.
- Protect infrastructure.
- Monitor and control borders.
- Provide intelligence and detect hidden networks.
- Prevent terrorism.

Healthcare – Authorize treatment, develop best-in-class care, prevent FWA.

- Minimize provider fraud, waste and abuse (FWA).
- Compare patient data to others with pre-existing conditions to analyze trends and recommend top treatments.
- Automate mass amounts of medical data for analysis and research.
- Create personalized treatments/medicines based on patient history and genetic information.
- Prevent data breaches.

Internet of Things (IoT) – Protect digital assets, prevent system failure, increase profitability.

- Monitor large infrastructure to prevent failure, detect anomalies, and reduce downtime.
- Increase revenue by predicting customers' upcoming needs.
- Access one-to-one monitoring of any device regardless of type/location.
- Protect customers' digital trail as increasing amounts of data are shared.

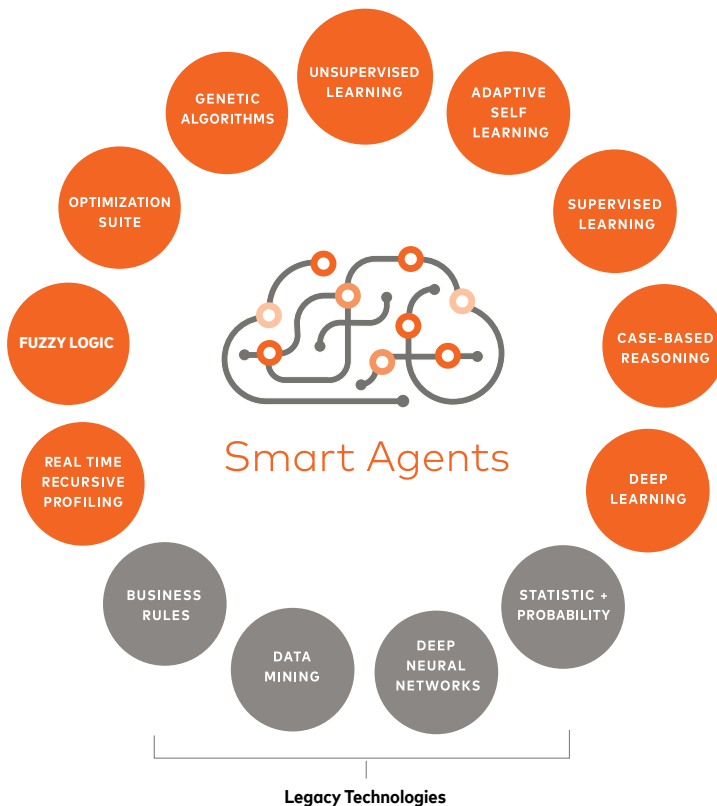**Marketing – Target marketing, predict trends, increase sales.**

- Increase sales through intelligent, personalized marketing.
- Reduce uncollectable debt through customer segmentation alerts.
- Predict latest industry and marketing trends.
- Target loyalty programs to users' needs or interests.
- Create features specifically for your customers.

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Next generation AI technology

Brighterion's Smart Agents is a personalization technology that creates a virtual representation of every entity and learns/builds a profile from the entity's actions and activities. Smart Agents is the only technology with the ability to overcome the limits of legacy machine learning, allowing personalization, adaptability and self-learning.

Smart Agents do not rely on pre-programmed rules and do not try to anticipate every possible scenario. Instead, Smart Agents create profiles specific to each entity and behave according to their goals, observations, and the knowledge that they continuously acquire through their interactions with other Smart Agents. Each Smart Agent pulls all relevant data across multiple channels, irrespective of the type or format and source of the data, to produce robust virtual profiles. Each profile is automatically updated in real-time and the resulting intelligence is shared across the Smart Agents. This one-to-one behavioral profiling provides unprecedented, omni-channel visibility into the behavior of an entity.

Smart Agents can represent any entity and enable best-in-class performance with minimal operational and capital resource requirements. Smart Agents automatically validate the coherence of the data, and perform the features learning, data enrichment and one-to-one profiles creation. Since they focus on updating the profile based on the actions and activities of the entity, they store only relevant information and intelligence rather than the raw incoming data they are analyzing, which achieves enormous compression in storage.

Intelligent, self-learning, resistant to disruption

Legacy technologies in machine learning generally rely on databases, which use tables to store structured data; however, tables cannot store knowledge or behaviors. Smart Agents bring a powerful, distributed file system specifically designed to store knowledge and behaviors. This distributed architecture allows lightning speed response times (below 10 milliseconds) on entry level servers as well as end-to-end encryption and traceability. The distributed architecture allows for unlimited scalability and resilience to disruption as it has no single point of failure.

Smart Agents

- GENETIC ALGORITHMS
- UNSUPERVISED LEARNING
- ADAPTIVE SELF LEARNING
- OPTIMIZATION SUITE
- SUPERVISED LEARNING
- FUZZY LOGIC
- CASE-BASED REASONING
- REAL TIME RECURSIVE PROFILING
- DEEP LEARNING
- BUSINESS RULES
- DATA MINING
- DEEP NEURAL NETWORKS
- STATISTIC + PROBABILITY

Legacy Technologies

AI Express: achieve optimal business value in 6-8 weeks

Experience the benefits of Brighterion's Smart Agent artificial intelligence technology in as little as 6-8 weeks with a fully functional model customized to your unique business situation. Where other implementations take months or years to launch, or fail from the outset, Brighterion draws upon 20 years of deep experience to provide your organization with the quickest time to value.

AI Express relies on Brighterion's proven methodology to provide you with specific tools to solve your unique challenges. Our experts will work with you to develop a deep understanding of needs and give you hands-on experience with our AI tools. We will help you collect data, collaborate on outcomes and develop your AI model in less than two months, providing the quickest time to value in our industry.

Six phases of engagement from discovery to deployment

1 Business understanding

Determine business objectives and success criteria

2 Data understanding

Collect, describe, explore and validate data

3 Data preparation

Select, clean, construct and integrate data

4 Modeling

Select modeling techniques and determine model building iterations

5 Evaluation

Evaluate results and review processes to determine next steps

6 Deployment know-how

Review deployment options and create a high-level deployment plan

6 - 8 WEEKS

● **BRIGHTERION & CUSTOMER** ● **BRIGHTERION**

CRISP-DM METHODOLOGY

How do we do it so quickly? We have a few secrets:

- We accept any data in any format. You simply provide the data and Brighterion handles the rest.

- We draw upon a full suite of AI tools, but use our patented Smart Agent technology to use them to the benefit of your business goals.

- We make sense of your data and how it will be used in your organization.

- Smart Tools, not a small army of data scientists, build your model drawing on the best of AI and machine learning tools.

At the end of this time, you will be able to test drive the system, produce an AI business case for your company and choose if Brighterion is right for you.

Yes, we are so convinced you'll be happy, we build and test your solution before you need to commit.

Contact Brighterion to discover why next generation AI is critical to your business.

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About Brighterion

Brighterion, a Mastercard company, was founded in 2000 and acquired by Mastercard in 2017. The company delivers a leading artificial intelligence and machine learning platform that provides real-time intelligence from any data source, regardless of type, complexity or volume. The platform secures billions of transactions every month and is used and trusted by many of the world's leading organizations and governments in mission critical applications in payments, compliance, financial markets, security and defense, healthcare, Internet of Things, marketing and more.

Brighterion has been awarded several patents, including our unique "Smart Agent" technology with self-learning processes. The company has received multiple awards including the Innovation World Series Award and the Morgan Stanley Fintech of the Year Award. Brighterion was designated a 2017 Cool Vendor by Gartner, Inc.

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