Datameer SmartAI™
Operationalizing AI to the Business
Datameer SmartAI™ operationalizes deep learning models directly into your information-rich data lake for AI-enriched analytic pipelines. SmartAI dramatically reduces the time, effort and cost to deploying deep learning insights, giving you the business results you’ve been seeking.

Despite the promise of machine learning and artificial intelligence, most enterprise data science initiatives are plagued with high costs and long delivery cycles, resulting in little value. The major obstacle is the custom-coded “re-implementation” deployment process which is time and resource intensive.

To show value from data science, Chief Data Officers are seeking ways to dramatically shrink the time and cost to deliver AI-enriched insights to the business. This requires ways to integrate AI directly to their data lake where:

• AI-enriched insights can be executed at scale on big data
• Business analysts can easily plug AI models into their analytic workflows
• Proper enterprise-grade security and governance can be applied

The Solution

SmartAI combines the rich data management and pipelining capabilities of Datameer with Google TensorFlow, the fastest growing platform for an end-to-end deep learning analytic cycle. The combined Datameer-TensorFlow solution delivers the fastest time to deeper, business-ready insights through:

• Agile creation of rich analytic pipelines that feed deep learning models through Datameer’s advanced integration, preparation and feature engineering features
• Creation of deep learning models using TensorFlow's advanced algorithms and performance architecture
• Analyst access to trusted deep learning models within the function library for easy one-click application of the model during analysis
• Direct operationalization of TensorFlow models into Datameer data pipelines to integrate models with scale, performance and governance

This seamless connection between the model and the data lake allows for scalable runtime execution of TensorFlow models with Datameer jobs, and easy integration of deep learning results to downstream applications and tools.
Execute at Scale on Your Data Lake

Data gravity calls for analytics to be run closer to where your data resides and AI is no exception. SmartAI lets you seamlessly integrate your TensorFlow models into Datameer analytic pipelines to execute them at scale where your data is – on your data lake.

SmartAI utilizes the extensive job execution power of Datameer and Hadoop to deliver the performance that AI-enriched analytics require. Datameer Smart Execution delivers parallel optimization of the entire job workload – ingest, preparation and advanced algorithms. It partners with Yarn to optimize resource utilization on the Hadoop cluster to leverage the available compute and storage power.
Faster, Self-Service AI-Driven Insights

Data scientists often spend 80 percent of their time doing non-data science work - preparing datasets by hand and writing code to execute their models. Free up their valuable time to focus on finding insights, and democratize their work to the business analysts who run the analytic pipelines, creating a harmonious workflow that produces results faster.

The combination of Datameer and TensorFlow gives you a faster end-to-end AI analytic cycle to speed your time to insight:

- Shape and organize your big data faster with Datameer’s rich data preparation features while locking down the data with extensive security features
- Rapidly create deep learning models with as little as a few lines of code using TensorFlow and train them quickly using its performance architecture
- Add TensorFlow models to the Datameer function library and into your Datameer workbooks via the TensorFlow plug-in
- Operationalize and govern your AI-enriched data pipelines within Datameer for regular job execution and application of data management policies

Enterprise-Grade Security and Governance

AI-enriched analytic pipelines often consume private consumer data, requiring enterprise-grade security and governance. With increasing regulation such as the EU General Data Protection Regulation (GDPR), rules must be applied on how customer data is used by organizations, making governing your AI efforts more critical than ever.

SmartAI takes full advantage of Datameer’s rich governance features to give you the control your IT teams require:

- Data encryption in-flight and at rest
- Secure views with field obfuscation
- Role-based security
- Integration with enterprise-security (LDAP, Active Directory)
- Secure job execution with Kerberos integration
- End-to-end lineage tracking
- Detailed job and user auditing
- Integration with external metadata systems for reporting

With SmartAI, expect fully secure AI-enriched pipelines and easily track how the data and models are used for compliance auditing and reporting.

About Datameer

Datameer is a big data analytics platform that helps companies create and extract value from enterprise data lakes. Leading brands such as Aetna, American Airlines, British Telecom, National Instruments, Priceline, Sophos and Telefonica all use Datameer to answer deeper business questions to improve market effectiveness, increase efficiency and/or reduce risk.

Using Datameer, organizations deliver these insights in hours instead of months and operationalize them immediately, increasing their business agility and responsiveness. To learn more, please visit www.datameer.com.