

# IBM LinuxONE™ and AI

## SOLVING ANTI MONEY LAUNDERING

### Highlights



- Achieve low latency inferencing with first-in-industry IBM LinuxONE Emperor 4 integrated accelerator



- Achieve high throughput while analyzing real-time transactions with IBM LinuxONE Emperor 4's on chip AI accelerator



- On digital currency transactions run inferencing for fraud 85% faster by co-locating your application with Snap ML on IBM LinuxONE Emperor 4 versus running inferencing remotely using Scikit-learn on a compared x86 server

Anti-money laundering (AML) efforts consist of laws, regulations and procedures which are designed to prevent criminals from exchanging money obtained through illegal activities—i.e., “dirty money”—into legitimate income, or “clean money.” While money laundering is an international crime, many rules are local, and they can sometimes conflict with federal policies, making it very difficult for financial institutions to remain compliant with rules and regulations. Some banks have even decided to suspend services in countries that make it hard to stay compliant or have a reputation for facilitating money laundering.

Using AI applications running on IBM LinuxONE Emperor 4™, not only identify various money laundering patterns but also prevent them from happening in real-time.

## Detect patterns easily

### SnapML RandomForest API

```
from snapml import RandomForestClassifier
as SnapForest

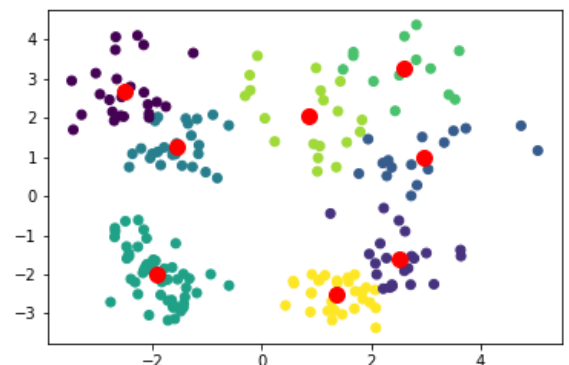
rf = SnapForest(random_state=random_state,
                max_depth=max_depth,
                n_estimators=n_estimators,
                n_jobs=num_threads,
                max_features='sqrt',
                use_histograms=True,
                use_gpu=True,
                gpu_ids={0})

# Train
rf.fit(X_train, y_train)





# Inference
pred_test = rf.predict(X_test)
```

- Speed, Efficiency & Accuracy – Make fast decisions, use resources judiciously and make accurate predictions with Snap ML
- Securely store and access your most valuable enterprise data within modern hybrid cloud applications
- Federated Learning – Share AI models not data with other entities to improve model accuracy and enhance data privacy

- Train anywhere deploy on IBM LinuxONE – Train the model on Public Clouds, Private clouds, On-Premises but deploy them on the IBM LinuxONE Emperor 4 platform
- Enterprise-ready AI model deployment- Operationalize models within transactional applications to enable real-time insight. Choose from several scoring approaches, including RESTful APIs, Java™ and other integration, optimized for the highest performance.



## Advantages

- 
 Flexible and scalable platform to deploy fraud models and data
- 
 Score all transactions and leave none behind yet meet all stringent SLAs
- 
 Detect laundering, adapt more dynamically to all types of Money laundering and deter laundering in real-time
- 
 Data Privacy and Compliance across Geographies by sharing and improving on AI models rather than Data



### IBM Cloud Pak for Data for zSystems

Collect, organize, analyze data to infuse AI on LinuxONE

### AI on IBM zSystems AML solution

Identifies various AML scenarios including scatter gather problem



### Anti Money laundering on IBM LinuxONE

### Snap ML

Scalable, low latency inference using Integrated Accelerator for AI

### Scikit learn

Machine learning and statistical modeling via Python on LinuxONE

**Disclaimers:** Cited by a third-party industry analyst.

AI on IBM LinuxONE supports PyTorch, TensorFlow, Keras, Anaconda, Spark, and others

Performance results based on IBM internal tests doing inferencing using a Scikit-learn Random Forest model with Snap ML v1.9.0 (tech preview) backend on IBM LinuxONE Emperor 4 and with Scikit-learn v1.0.2 backend on compared x86 server