Automatic Fraud Detection

Summary

- Context & objectives
- Architecture
- Deployment
- Perspectives

Context and objectives

- Create a fraudulent payment detector using scikit-learn library
- Create an infrastructure that ingest real-time payment
- Automatically classify each payment and send back this prediction in real-time to a notification center

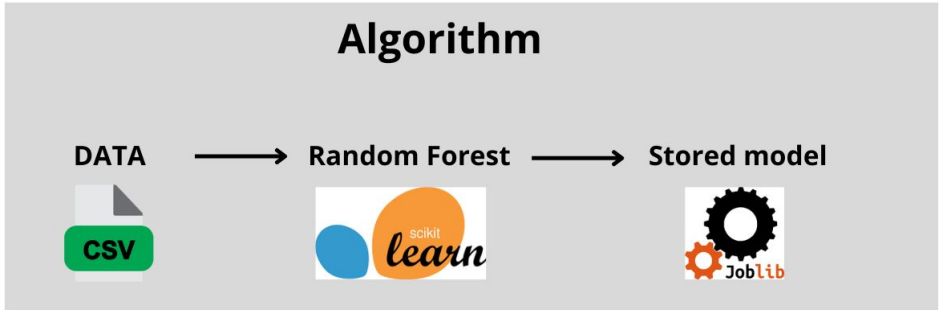
Architecture - why we built it that way ?

- Fraudulent Payments full dataset → algorithm training
- Save model in Joblib and store it in a distant server
- Real-time payment API → fastAPI

Deployment

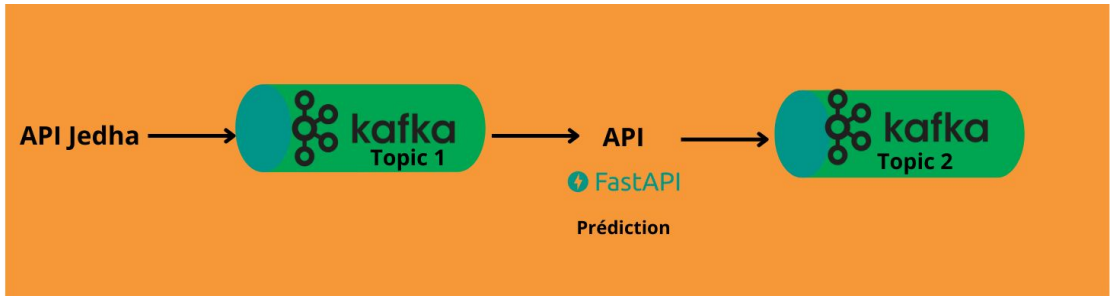
Fraudulent Payments full dataset → algorithm training

- Machine learning model to perform data classification : Random forest
- Dataset target : payments labelled as fraudulent or not

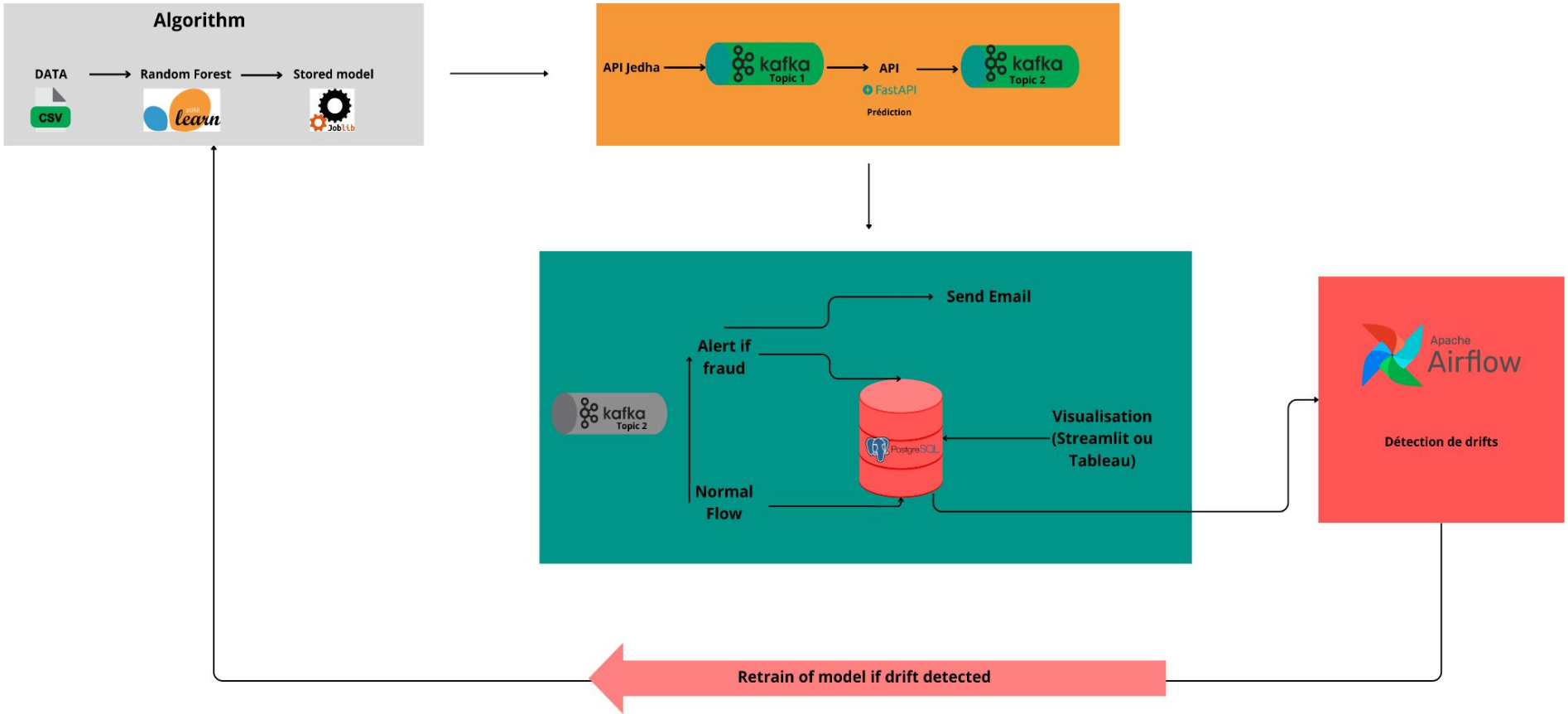


Deployment
fastAPI

- Fast API allows to configure our API.
- Kafka filters and transforms results between the Jedha's API and our API to send a notification in case of fraud
- The second topic gathers the results our model and sends a notification in case of fraud



Perspectives



Thanks!

See you in the next course