

Credit Card Fraud Detection

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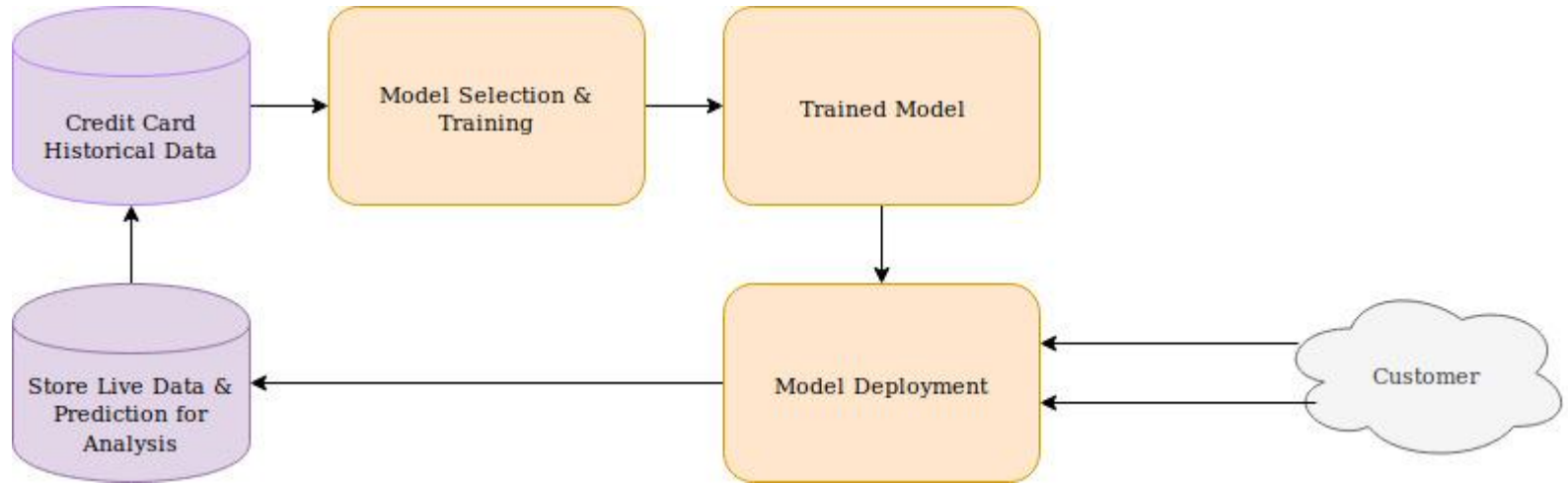


What is Credit Card Fraud Detection

- It is important that credit card companies are able to recognize fraudulent credit card transactions so that customers are not charged for items that they did not purchase.
- Similar application is used in credit providers end as well.



Objective

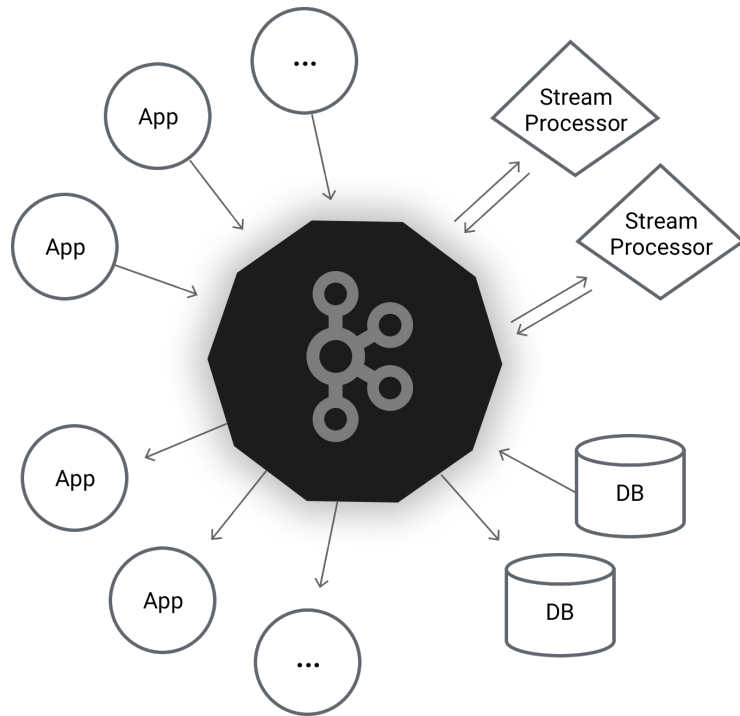


Technology Stack

- Cassandra
- Scikit / TensorFlow / PySpark
- Kafka
- Flask

Kafka

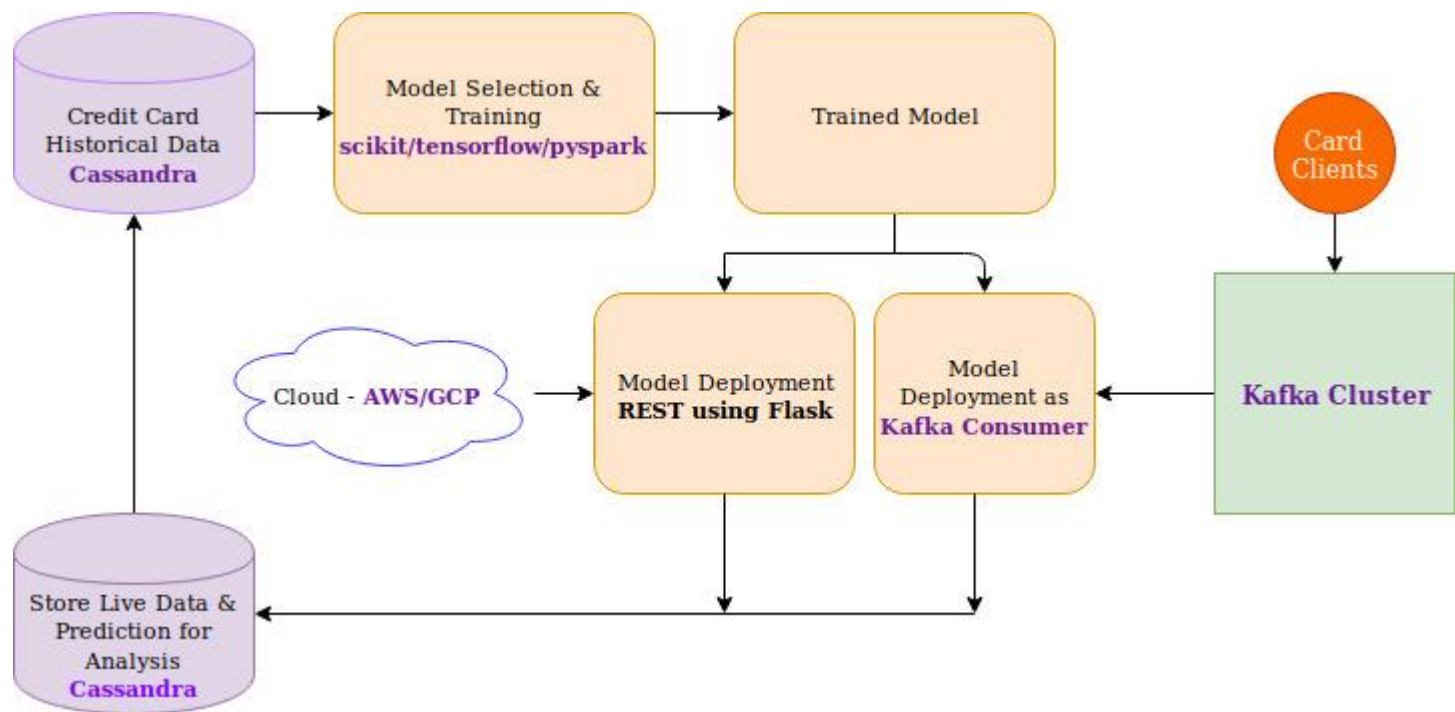
- Horizontally, distributed & scalable streaming platform.
- Highly Available
- Commodity hardware



Cassandra

- Horizontally, distributed scalable storage.
- Highly available
- Commodity Hardware

Solution



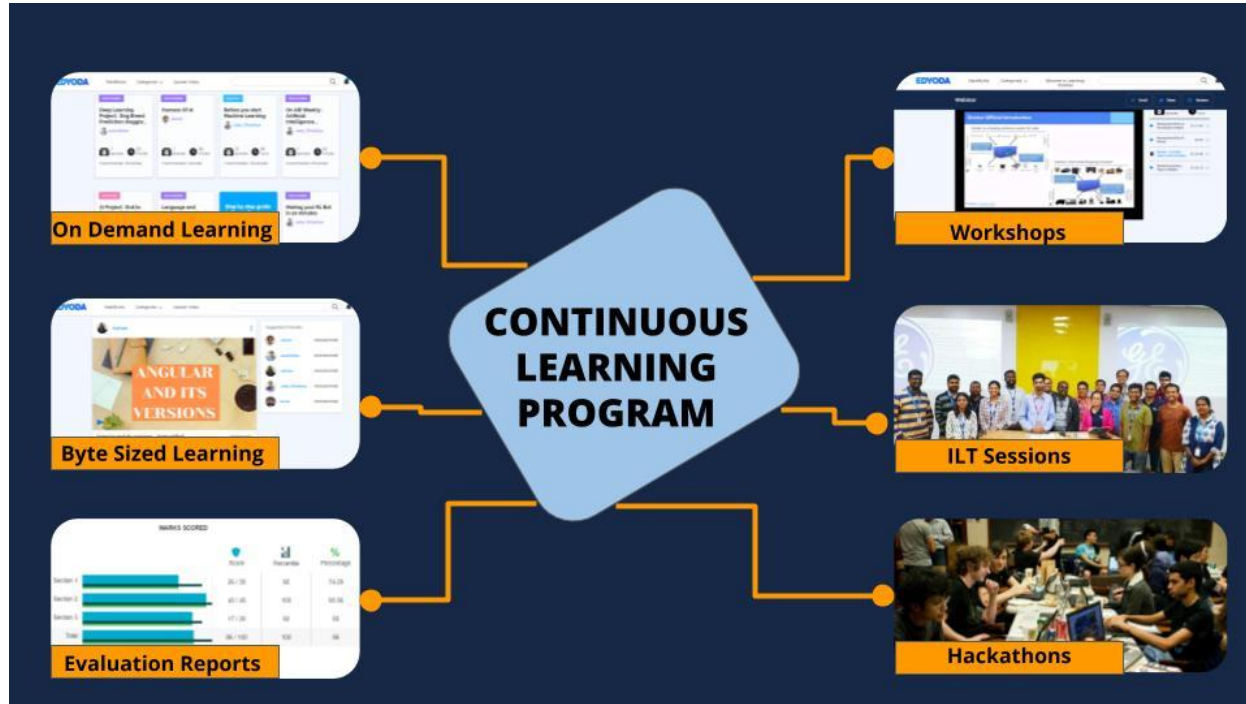
Understanding Dataset

- This dataset presents transactions that occurred in two days, where we have 492 frauds out of 284,807 transactions. The dataset is highly unbalanced, the positive class (frauds) account for 0.172% of all transactions.
- Due to confidentiality issues, we cannot provide the original features and more background information about the data. Features V1, V2, ... V28 are the principal components obtained with PCA, the only features which have not been transformed with PCA are 'Time' and 'Amount'.
- Feature 'Time' contains the seconds elapsed between each transaction and the first transaction in the dataset. The feature 'Amount' is the transaction Amount, this feature can be used for example-dependant cost-sensitive learning. Feature 'Class' is the response variable and it takes value 1 in case of fraud and 0 otherwise.

Study Materials

- Complete Data Science Code - <https://github.com/zekelabs/data-science-complete-tutorial>
- Credit Card Project Code - <https://github.com/zekelabs/ai-project-fraud-detection>
- Credit Card Project Videos - <https://www.edyoda.com/course/1432>
- More AI courses - <https://www.edyoda.com/category/artificial-intelligence>

Edyoda Journey



Contact

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