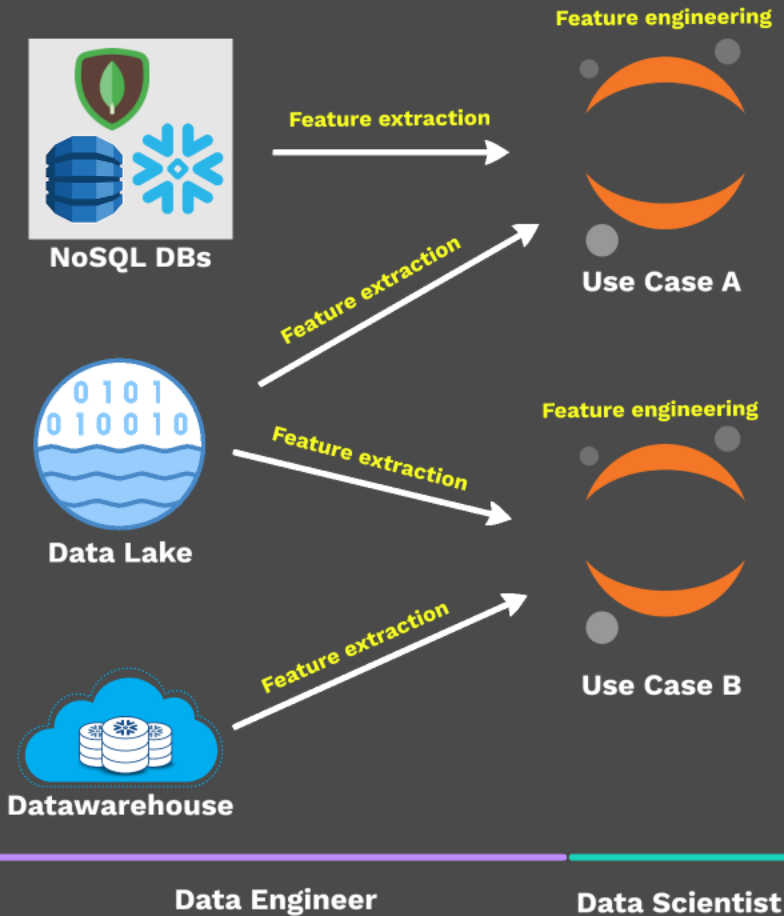


Data Infrastructure for Machine Learning

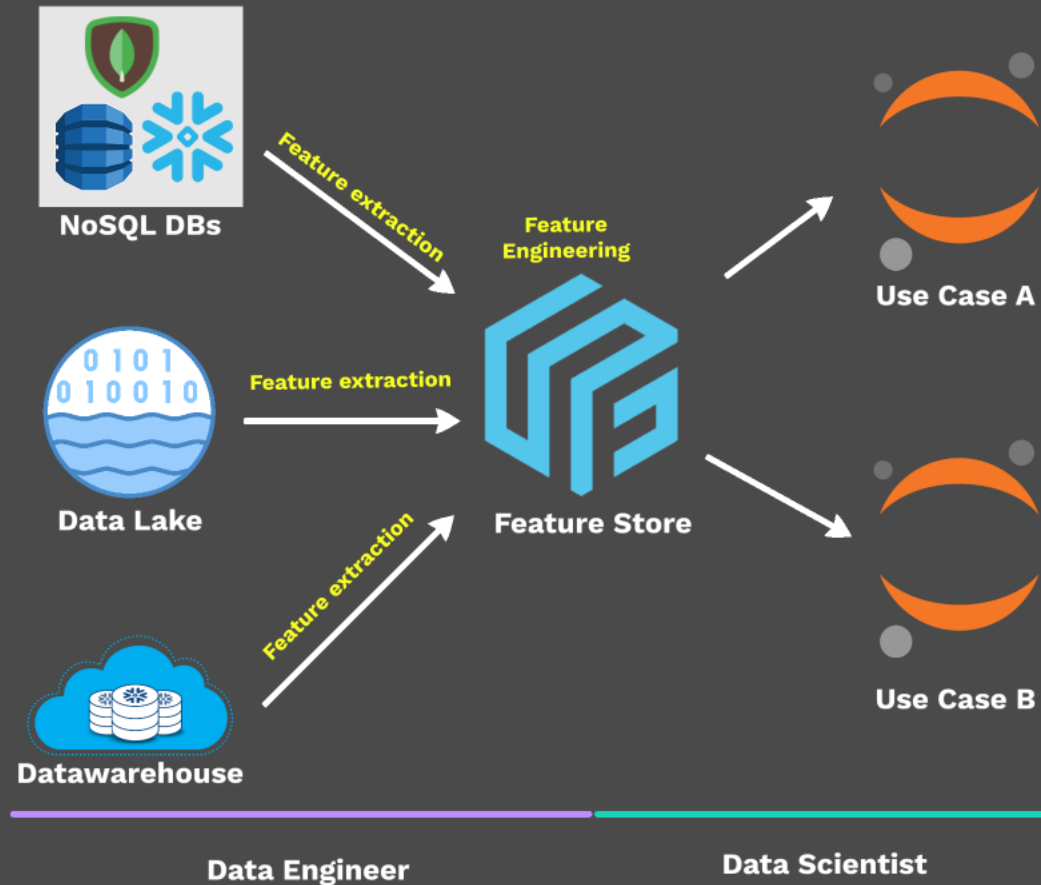


Feature Store for model training

Model training prior to a feature store.

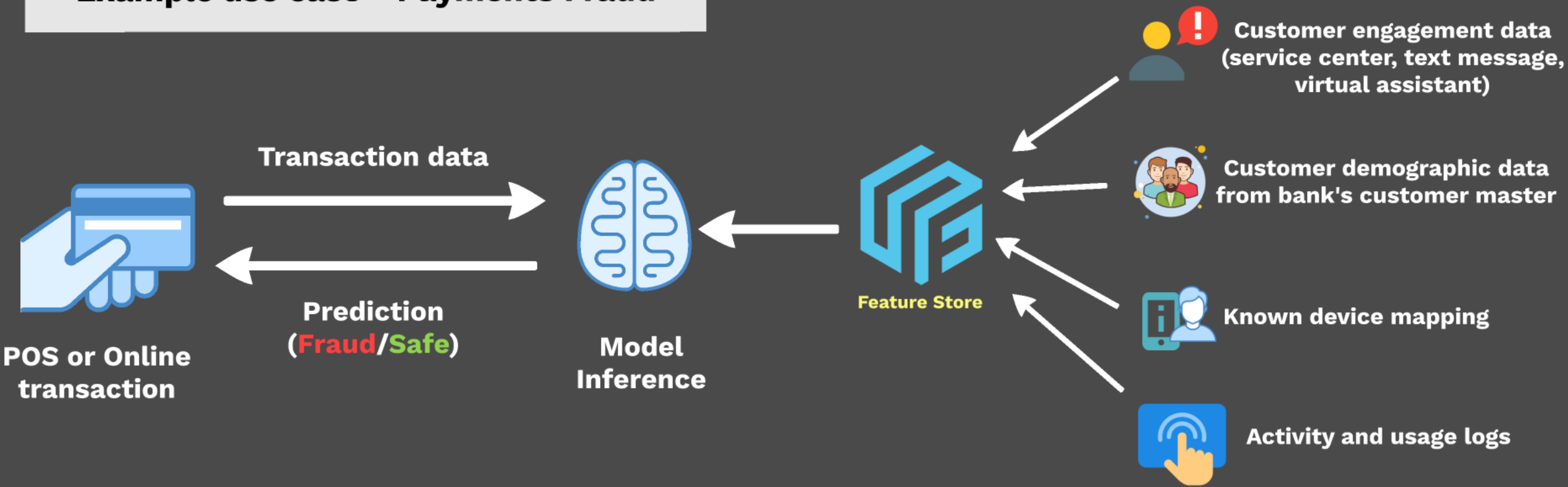


Model training post implementation of a feature store.



Feature Store - Inference

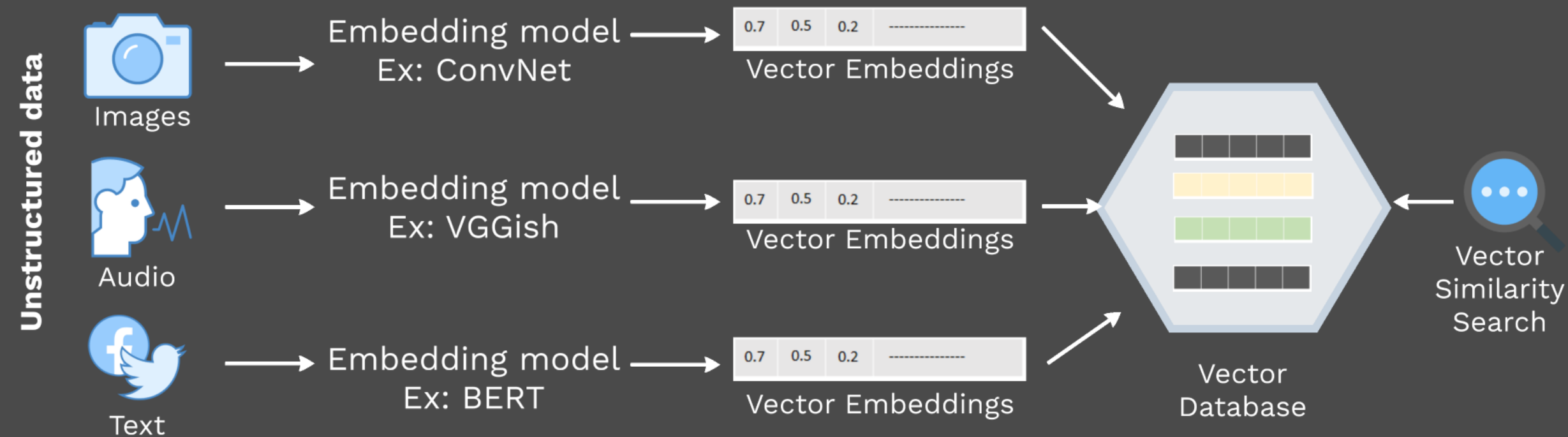
Example use case - Payments Fraud



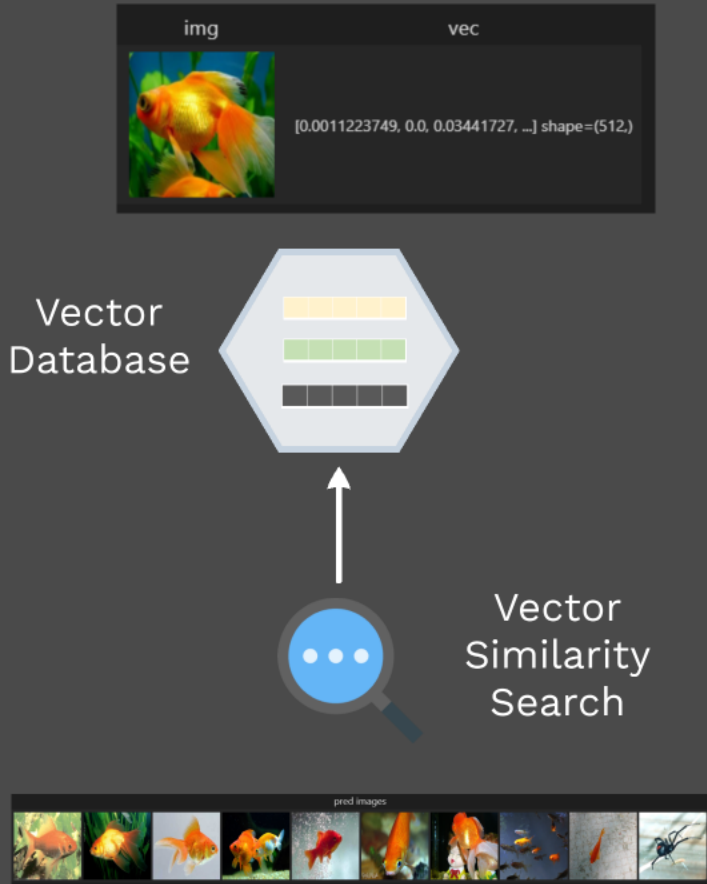
Model makes predictions based on transaction data combined with available features from the feature store.

Features from the banks data sources are extracted and processed periodically and made available to the model during inference.

Vector databases



Vector similarity search



Applications of Vector Similarity Search

Image retrieval

Find similar images based on their feature vectors.

Online retailers use image retrieval using vector similarity search to suggest visually similar products to customers.

Natural language processing (NLP)

Vector similarity search is used in NLP to find similar documents, sentences, or words based on their semantic content. This technique is used in industries such as search engines, recommendation systems, language translation, and text classification.

Biometric Identification

Vector similarity search is used in biometric identification systems, such as facial recognition and fingerprint recognition, to match images or patterns to a database of known identities. This technique is used in industries such as security and law enforcement.