

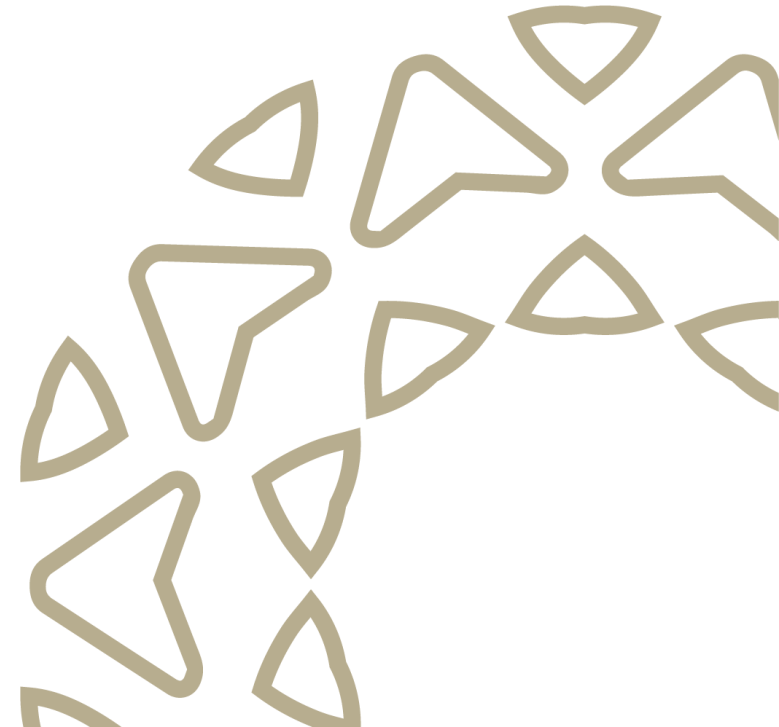


STATE TAX SERVICE
UNDER THE MINISTRY OF ECONOMY
OF THE REPUBLIC OF AZERBAIJAN

«DEEPSAGE» PLATFORM



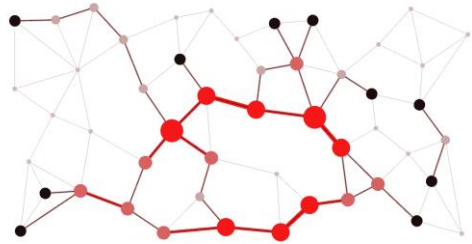
DeepSage



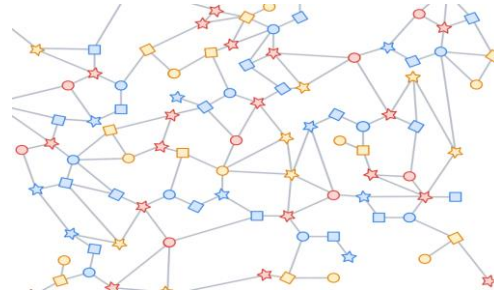


«DeepSage» is a platform that integrates various machine learning and deep learning systems and algorithms aimed at solving specific tasks.

The platform includes the following main algorithms:



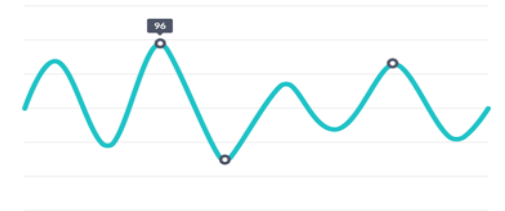
A neural network
for recognizing products
listed on receipts
(classifier)



A neural network
for recognizing products
listed on invoices
(classifier)



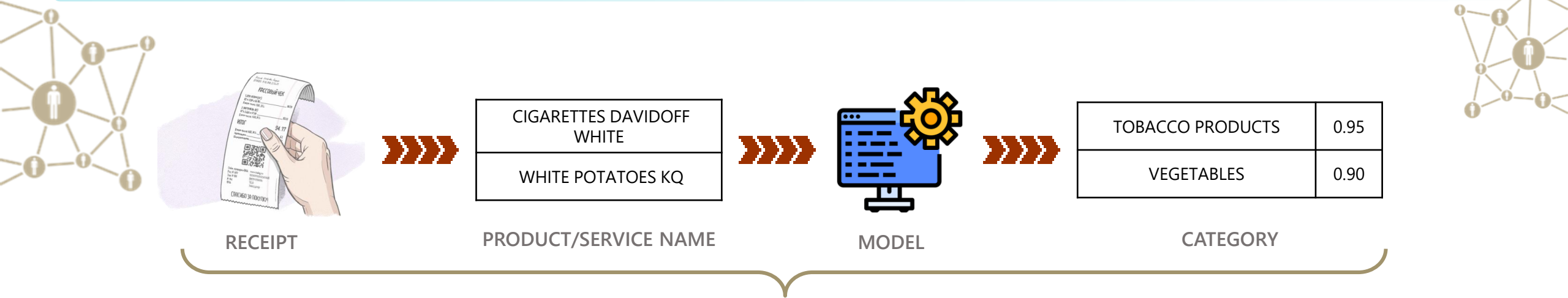
An algorithm for
identifying individuals
for the FATCA/CRS
system



Various algorithms
for detecting patterns,
trends and anomalies
in cash transactions

NEURAL NETWORK FOR RECOGNIZING PRODUCTS LISTED ON CASH RECEIPTS (CLASSIFIER)

Identifying the names of goods and services listed on cash register receipts



INSTALLED AND USED FUNCTIONALITY

-  Tracking prices for certain products
-  Determination of classification by facilities and cash registers
-  To give refusals on certain goods in the 'VAT refund' system
-  Detection of products with incorrect tax rates
-  Detection of facilities providing unidentifiable goods
-  Identifying taxpayers who supply fur products despite their simplified taxpayer status
-  Comparison of barcode indicators with cash register data

NEURAL NETWORK FOR RECOGNIZING PRODUCTS LISTED ON INVOICES (CLASSIFIER)



DeepSage



STATE TAX SERVICE
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OF THE REPUBLIC OF AZERBAIJAN

Identifying the names of goods and services listed on invoices



INVOICE



CAPPY SAFTALI PET 1 LT
WOOD 5x10 CM

PRODUCT/SERVICE NAME



MODEL



NON-ALCOHOLIC DRINKS	0.95
WOOD	0.90

CATEGORY

INSTALLED AND USED FUNCTIONALITY



Detection of suspicious invoices (not belonging to the services or goods categories)



Identification of taxpayers who provide various goods or services



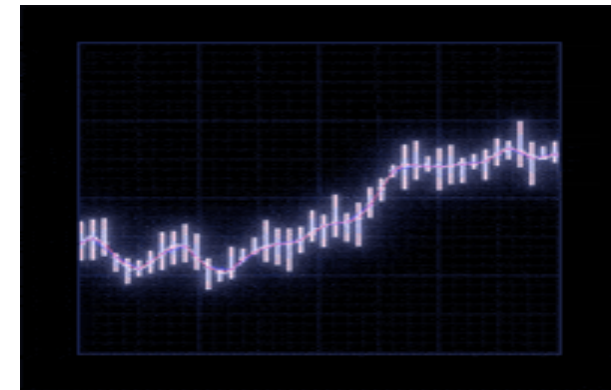
Comparison of sales/purchase invoices

VARIOUS ALGORITHMS FOR DETECTING PATTERNS, TRENDS AND ANOMALIES IN CASH TRANSACTIONS



Detecting patterns, trends, and anomalies in cash transactions:

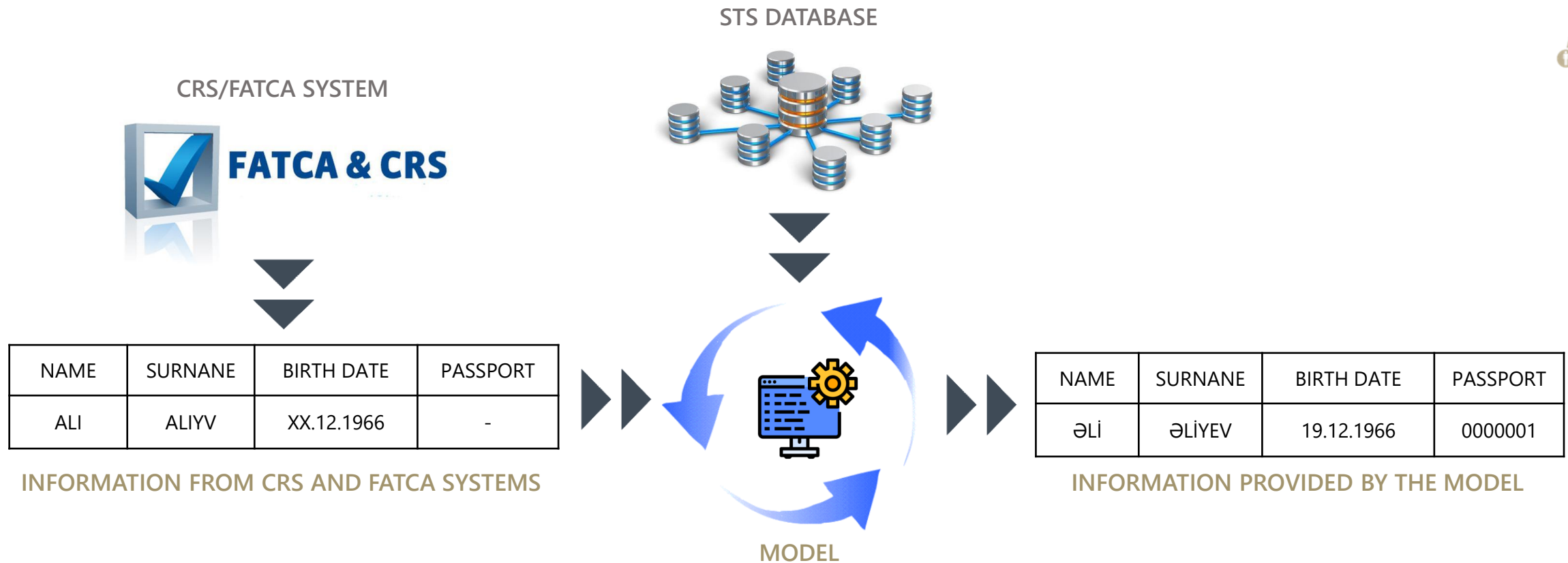
- Identification of facilities whose cash flow does not respond to holidays (or other significant days);
- Identification of cash registers with abnormal activity observed in cash transactions;
- Determining the facilities with a decrease/increase in cash turnover for the respective periods;
- Identification of taxpayers who adjust their turnover (for cash transactions) to a certain level in order to avoid VAT registration.



ALGORITHM FOR IDENTIFYING INDIVIDUALS FOR THE FATCA/CRS SYSTEM



Identification of persons entering from the CRS and FATCA systems



THANK YOU!

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