FOR THE FUTURE

actien

overseas sandel

ACTIEN OU
Company #14744678

Harju maakond, Sakala
TN 7-2, 10141,Tallinn,
Estonia
www.actien.eu

SANDEL OVERSEAS LTD
Company #06070026

30 Fenchurch Street,
London, EC3M 3BD
United Kingdom
www.sandeloverseas.com

Our vision

Thanks to the individual approach to each client, the ACTIEN Group of Companies development team uses the most advanced methods of managing resources and processes when creating software, while providing the Customer with a high-quality software product.

We combine the practices of traditional and new technologies, including blockchain (distributed database technology), machine learning and IoT (Internet of Things).

The basis for the implementation of all projects is to increase the efficiency of operational processes, the creation of new business models and their scalability for our clients.

Blockchain & Data management:

- Record keeping
- Data management & reconciliation
- Supply chain
- Compliance reporting & audit
- Track and trace systems

Machine Learning & Computer Vision:

- Predictive analytics
- Prediction with missing data
- Pattern recognition solutions
- Data management: statistics, databases & deep analytics

Development & Integration:

- Enterprise systems integration
- Monitoring systems
- Computer vision
- Object recognition
- Device interconnectivity
- Auto programmed systems
- Device management APIs

About Actien Group

3
Offices
for customers support in EU and UK

11
Countries
With our customers

2007
19 years
With our customers

2026
All Group Members
Merging into one EU company group

Digital Health

DevOps

Software Architecture

Big Data

Data Science

UX Design

ACTIEN GROUP

Solutions and Industries

Healthcare

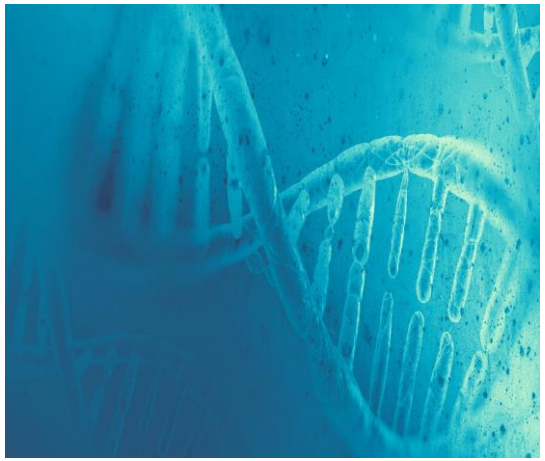
By combining data and new technologies, we create new products and services for solving modern global health problems.

Finance

ACTIEN helps global companies Fintech develop innovative solutions in the field of financial technologies.

Travel & Hospitality

We help organize trips on a fundamentally new level, using advanced technologies.



Retail & Distribution

ACTIEN and SANDEL OVERSEAS solutions allow you to analyze customer behavior, the effectiveness of marketing actions, create operational analytics.

Automotive

Revolutionary developments of advanced technology companies are approaching the beginning of the era of autonomous cars.

Government

We specialize in digital conversion, system integration and Data Management.

Agriculture

With software solutions from Softdata you can automate up to 90% of your business transactions.

Construction

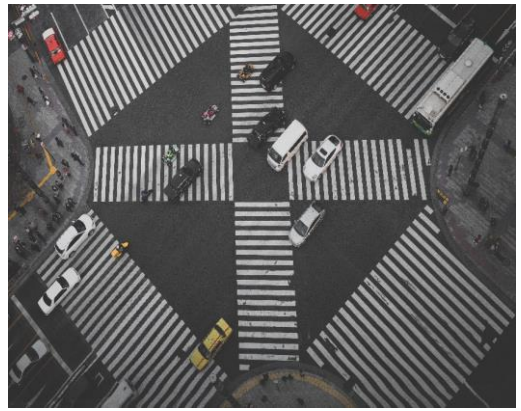
Creation of an automated control system for all available systems.

Gas & oil

All sorts of forecast equipment, analysis and analysis of drilling. Applying a policy of predictive analytics to minimize cost and planning correction of equipment.

Energetics

Each dollar spent on analytics receives RIO (Return of Investment) at a rate of 10.66 dollars with 60 and more deployments. Softdata integrates these systems vertically, so the management of all levels has the necessary support for reviewing information, planning, response and control.



Media & Entertainment

Actien helps customers stay relevant in a highly competitive digital advertising space.

Directions of the company's activities and technological stack

Mobile and Web Development

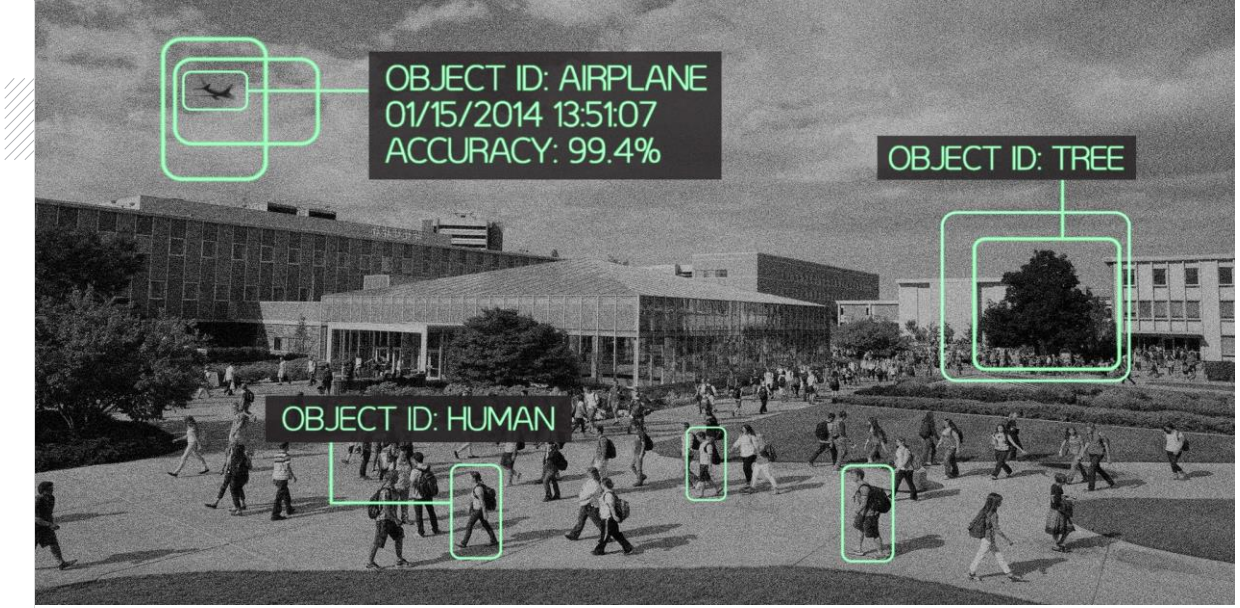
- Development of cross-platform applications
- Smart Watch Applications
- Corporate systems of any complexity
- Blockchain (Hyperledger)

Postgres, c# .Net, UWP, REST API, native Android, native iOS, native js, vue js, PHP, Laravel, Angular.js, Postgres, Beanstalkd, microservices, Cordova, OnsenUI, Blockchain (hyperledger fabric)

Machine learning technologies

- Statistical analysis..
- Analysis of unstructured data.
- Forecasting based on incomplete data.
- Linguistic analysis.
- Image recognition systems
- Deep learning.

Python, Go, C++, SciKit, xgBoost, goml, Cython, vowpal wabbit, TensorFlow, 10K requests/sec



Computer vision systems

- Streaming recognition systems.
- Video analytics.
- Color vision and analysis multispectral images.
- Methods of forming X-ray and ultrasound imaging.
- Using the properties of the vision in man-machine interfaces

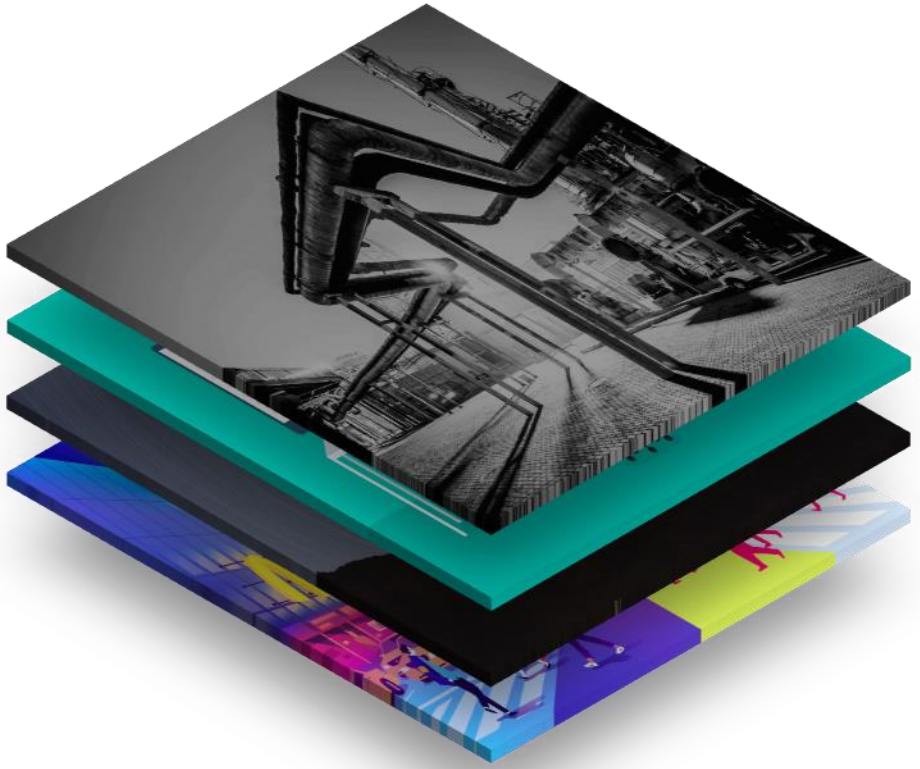
Accord.Net, OpenCV, Python, Go, C++, SciKit, ContourAnalysis, Cuda, TensorFlow

Virtual and Augmented reality

- The creation of training programs and tests
- Creating an interactive environment for interaction in AR / VR
- Demonstration stands AR for sales departments of construction companies
- Architectural 3D-modeling and visualization (interiors, exteriors)+ integration в AR/VR (low-poly, Hi-poly 3DS Max, ARCHICAD)

Unity, C#, .Net

Completed projects by ACTIEN GROUP



Decision on Identification of Counterfeits and Quality Control. Optimization of Processes in Import Export Operations

Tasks and Problems:

- Marking products with paper stamps or holograms is not enough an effective means of control.

- The need to develop and implement automated control system for turnover of products, in particular imports and excisable goods.

- Development of an “electronic brand”, which will provide a comprehensive control preventive monitoring in the field of turnover of certain goods (incl. excisable or imported) and cover each stage of their movement from the manufacturer or importer to the end user.

Technical solution of the problem:

- **STEP 1** Marking of each package a unique code in the Data-matrix format.

- **STEP 2** Develop a tracking system System components.

Additional functions:

Using the technology of distributed database (blockchain) and smart contracts for the automation of processes and antifraud :

- Anti-fraud
- Maintaining records / auditing
- Digital workflow control of sales chain management

Big Data Analytics – for detailed analysis and forecasting of information.

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Principle of operation (Analytical Center)

- Marking of commodity stamps (excise) with unique codes in Data-matrix format.

- Scanning consumer code on its own brand (including excise) through a mobile application..

- Automatic transfer of data on counterfeit to the analytical center controlling department / integration with IT-systems of the company (Xcel, SAP / 1C Accounting)

Software:

- Tracking goods circulation
- Mobile app
- Risk Management System (thematic checks)

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Stack:

Real-Time Data Management + Track & Trace + Blockchain

Java (Android), Objective C, Cordova, JS, OnsenUI, Angular, REST, php, Laravel, Postgres, Beanstalkd, Blockchain systems

Results:

R&D, developed the architecture of the system, developed and launched the pilot

Tracking System for the Supply of Drugs and Medical Products

Tasks and Problems:

- Supply chain imperfection before Repeated turnover products, Complexity and the duration of the revocation mechanism products.
- Weak forecasting and planning of product requirements, endless unpredictable failures and additional. volumes.
- The complexity of budget planning for products in the absence of accurate data.

Technical solution of the problem:

- **STEP 1** Marking of each package a unique code in the Data-matrix format.
- **STEP 2** Develop a tracking syst.

System components:

- Tracking the movement of goods
- Mobile app
- Risk Management System (thematic checks).

Additional Developed Functions:

Use of technology distributed database (blockchain) and smart contracts for automation processes and anti-fraud:

- Anti-fraud
- Maintaining records / auditing
- Digital document management control

Big Data Analytics – for detailed analysis and forecasting of information.

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Stack:

Real-Time Data Management + Track & Trace + Blockchain

Java (Android), Objective C, Cordova, JS, OnsenUI, Angular, REST, php, Laravel, Postgres, Beanstalkd

Results:

R&D, developed, implemented a pilot, developed the architecture of the national system.

- The project was chosen the best among other proposals of local IT companies i

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Marking:

- Primary format Data-matrix
- Group packing
- Transport

3 CRM Optimization: Visualization and Analytics of Big Data

Tasks and Problems:

Improving business performance by visualizing statistics, work with large data (big data) and their analysis in real time.

Ability to integrate a system of visual statistics with popular instant messengers.

Objective:

Turn the dry data into valuable information about all aspects of the business with the help of graphical visualization

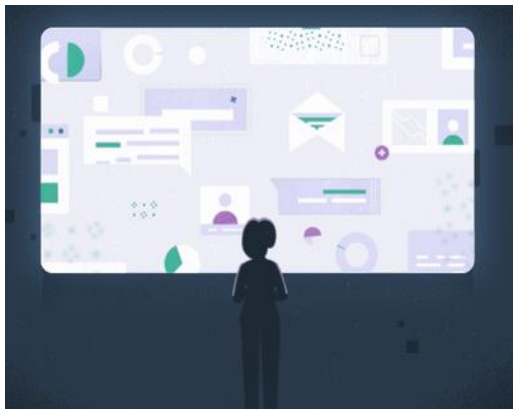
Create an opportunity for operational control of the business in real time

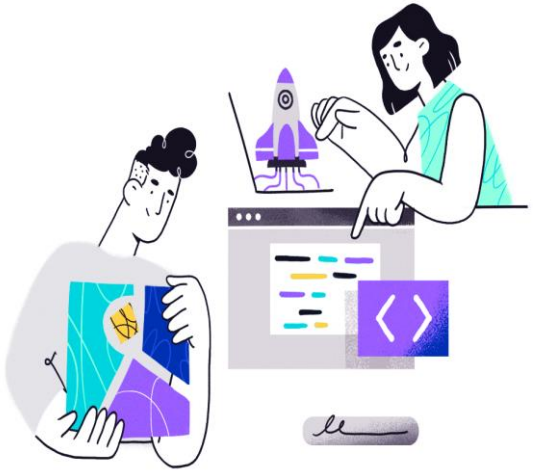
Functions:

- Visualization of analytics
- Comparison of the main indicators of several
- Displaying the sales execution plan

Analysis of historical and received data:

- Dynamics of sales
- Forecast and analysis plan-fact
- Statistics of sales of products for the selected filters.





Additional functions:

- Integration with current company systems
- Integration of the system with popular instant messengers
- Creating a Distributed Database in Private Blockchain
- Cryptography of documents for creation additional levels of security for individual data.

Stack:

Real-Time Data Management + Track & Trace

Angular, REST, Php, Laravel, Postgres, Beanstalkd

Expected results:

By monitoring and comparing the company is possible operative redirection of shares to them or other activities to improve performance.

- Improved sales, by understanding the less successful days for the company in a month;
- Informing relevant clients by segmenting users on loyalty cards;
- Operative intervention on the basis of trends and sales dynamics;
- Adjustment of planning and operational management through comparative analysis, "plan – fact";
- Tracking the percentage of implementation of the delivered plan;
- Monitoring of statistics for goods sold.

Results:

Developed system architecture, ready for implementation

Anti - Plagiarism Decision in Advertising Campaigns.

Optimizing Advertising Targeting

Part 1. Anti-Plagiarism Decision in Advertising Campaigns

Task:

Automation and optimization the effectiveness of back-end processes in digital marketing (online advertising).

Decision:

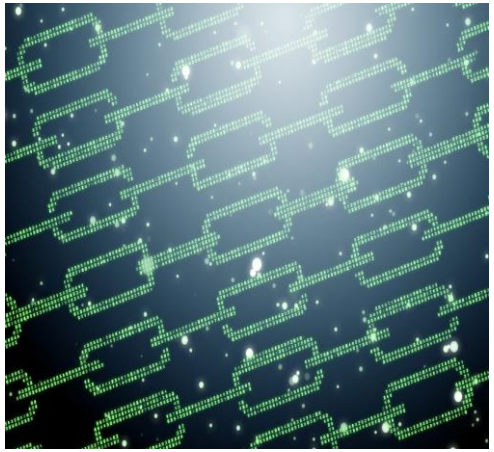
Application of algorithm of machine training allows:

- Effectively counter unwanted advertising campaigns (i.e blocking "false clicks" in banner advertising)
- Analysis of similar images allows you not to show the same banners on one page.

Part 2. Optimizing Advertising Targeting

Results:

- The developed accuracy of determining such images is 97%
- Reduction of costs and time up to 90%



Additional functions:

- The algorithm allows you to select the best advertisements based on user behavior
- Analysis of advertising sites allows you to put tags that define objects, scenes, people and even their actions
- This gives you the ability to show your users more suitable advertising by getting the best conversion
- Analyzing similar images allows you not to display the same banners on one page.

Stack

Computer Vision + Image Recognition

Python, C++, SciKit, OpenCV, 10K requests/sec

Results:

Implemented, tested, improved

Cybersecurity: Antifraud in Digital Marketing

Task Description

- Modernization of the advertising platform.
- Elimination of fraud in Internet advertising:
- Frod traffic and clicks
- obstructing the transition of advertising bots
- Overlay of creatives
- Repeat on page
- Ghost sites

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Decision:

- The program "Antibot" was developed and launched for the above tasks
- Developed a system and rules for filtering clicks

Anti-Frod Solution for e-Marketing

Results:

- Replacement of manual processes with automated algorithms of machine learning
- The benefits of technology can be up to 40% of the campaign budget
- Our development turned out to be more competitive and convenient than existing decisions of international companies.

Additional functions:

- Adding a number of parameters that will allow you to deeply analyze the site traffic;
- Applicability of technology for any security system and highly loaded system

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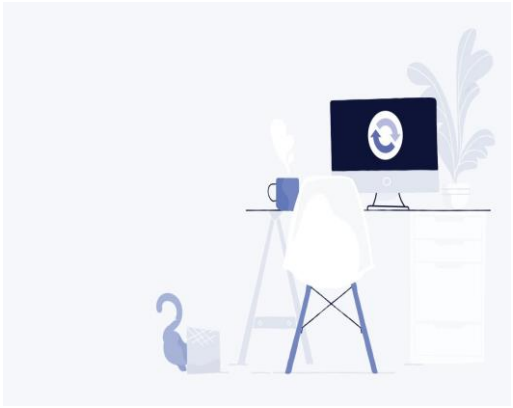
Stack:

Machine learning

Python, Go, C++, SciKit, xgBoost, goml, 10K requests/sec



Results:

Implemented, tested, improved

Digital Service and Product for Retail Networks: "Checking Bonus Promotion" by SANDEL B2B

Tasks and Problems:

Creation of a marketing action based on fiscal checks in retail networks

The project for the recognition of data on fiscal checks was planned as an attraction of additional funds to the budget

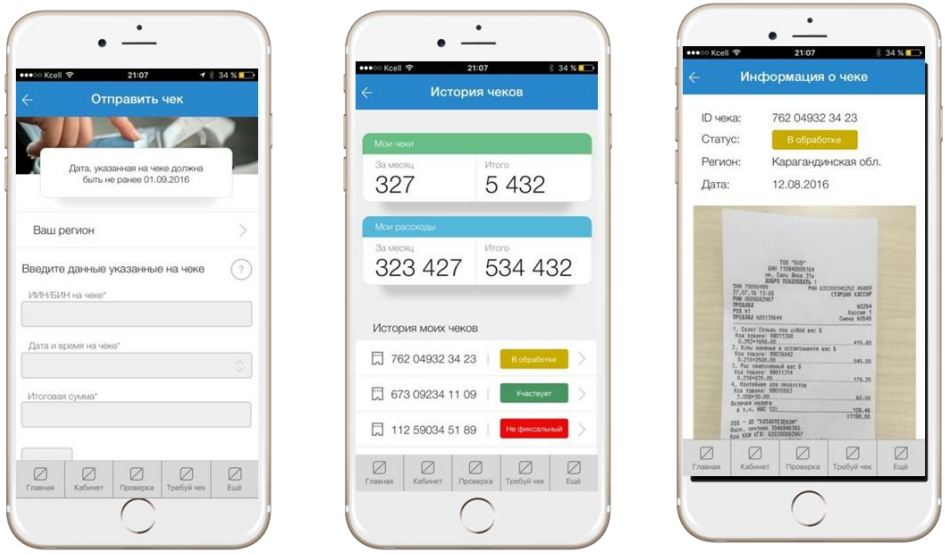
This solution was planned to be scaled for various retail networks in order to conduct various campaigns, promotions and competitions

Decision:

- The technologies used made it possible to recognize data in checks and any graphic images for further structuring and managing data (type of goods, date / time and other unique identifiers)
- Optimization of back-end processes for any advertising campaign

Results:

- Savings of operating funds up to 90% in this project
- Automation of processes: the program replaced the work of 10 people
- The accuracy of the determination of such images developed by us is 97%
- Optimization of back-end processes is broadcast and scalable for any advertising campaign



Stack:

Machine Learning + Image Recognition

Java (Android), Objective C, Cordova, JS, OnsenUI, Angular, REST, Php, Laravel, Postgres, Beanstalkd, Python, OpenCV

Results:

Developed, implemented, scaled

- The project was chosen among the proposals of such competitors as SAP.

Identification of animals, control of timely vaccination and blood sampling for agriculture business by SANDEL B2B

Tasks and Problems:

Provide:

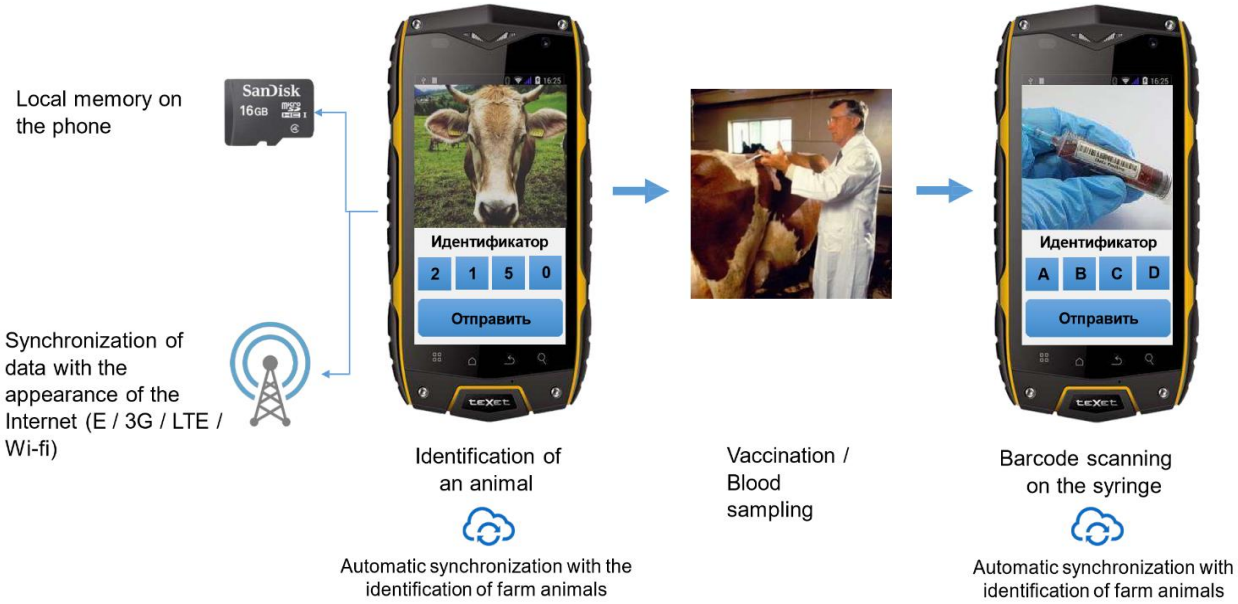
- Timely automated identification;
- Control of vaccination;
- Blood sampling control;
- Receiving data from remote rural districts (without access to the Internet)
- Timely conduct of prof. activities

Reduce:

- Loss of time;
- Loss of information;
- Distorted data.

Decision:

- Mobile application with the ability to function on GPS and base stations of cellular communication (E / 3G)
- Synchronization with the database "Identification of farm animals"
- Each time the barcode is scanned on the animal tag and syringe, the location of the veterinarian is determined by GPS



Stack:

Machine Learning + Image Recognition

Java (Android), Objective C, Cordova, JS, OnsenUI, Angular, REST, Php, Laravel, Postgres, Beanstalkd, Python, OpenCV

Results:

Research project, pilot implemented

Quality control of visual diagnostics using neural network technologies by SANDEL B2B

Tasks and Problems:

- Actual risks when using the device (human factor):
- Admission error in the use of medical equipment.
- Interpretation of data from survey images.
- 30% of incorrect surveys as a result of not following the inspection regulations and making an error in the use of medical equipment.*

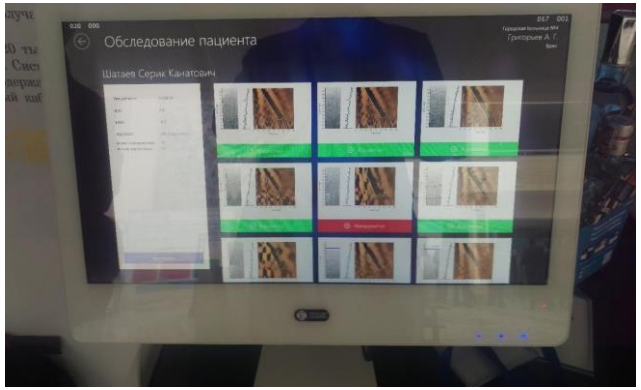
Decision:

By connecting our device to the ultrasound machine and machine learning algorithms, our program during the ultrasound confirms the results of the scan and helps to exclude the human factor in the diagnosis results.

Scaling the system:

- Segmentation of MRI and ultrasound imaging
- Automatic detection of diabetic retinopathy;
- Mammalogy, Analysis of laser speckle patterns
- and other

Demonstration of work



List of patient measurements:

Green indicates the correct measurements, red - requiring rechec.

Measurement Detailing:

Contours indicate the reason for the incorrect measurement

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Stack:

Machine Learning + Computer Vision

C#, UWP, Postgres, Accord.Net, ContourAlalysis, Python, SciKit

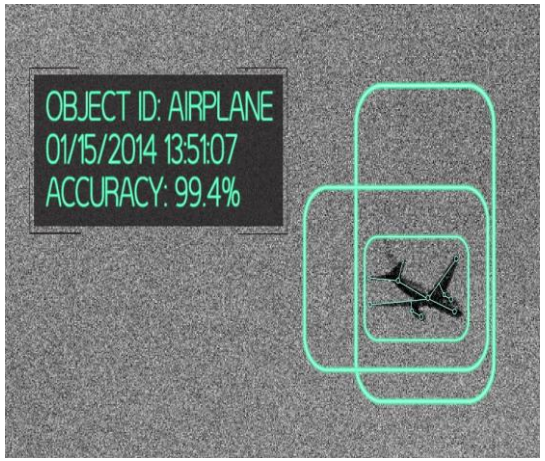
Results:

Research project, developed, tested, implemented pilot

Analysis of Movement, Movement Objects and Identification of Traffic Breakers

Tasks and Problems:

Development of a solution for the analysis of motion, objects of movement and identification of violators of traffic. Automation of writing out fines. Part of the project "Intelligent Traffic Management System (ITS)".



Decision:

- Dynamic Image Stabilization;
- Development of computer vision and machine learning algorithms that successfully analyze and identify violators;
- Algorithms recognize complex objects associated with road users: positions of traffic lights, colors of active traffic lights signals, turns, observance of marking, recognition of numbers of road vehicles.

Stack:

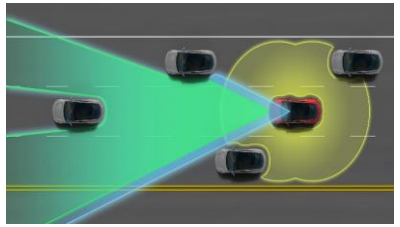
Computer Vision + Image Recognition

Python, C#, SciKit, OpenCV, Cuda, Keras, TensorFlow

Results:

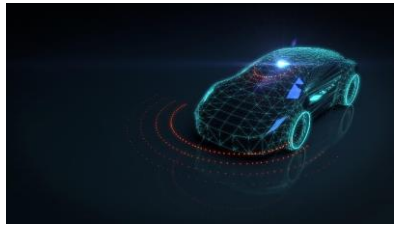
Developed, tested

Detector of moving cars



Definition of speed of movement

Number recognition



Traffic signal recognition

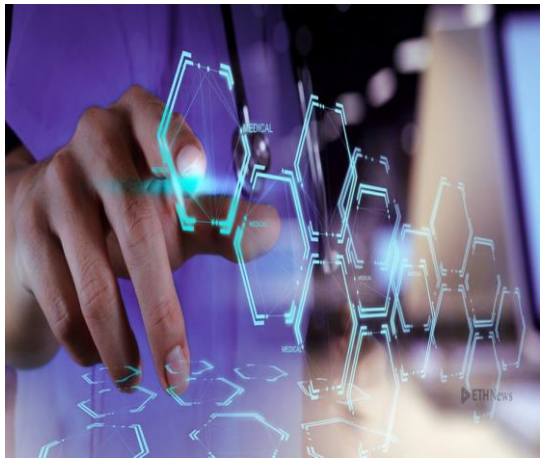
Other projects in development by ACTIEN & SANDEL B2B

Image indexing and search engine

- Indexing images using SURF and 3-dimensional histograms.

Recognition of the employees cars on parking lots

- Using Haar cascades, SVM and HOG descriptors.



Traffic congestion calculating

- Calculation using computer vision and web cameras.

Auction for sales of agricultural products without intermediaries

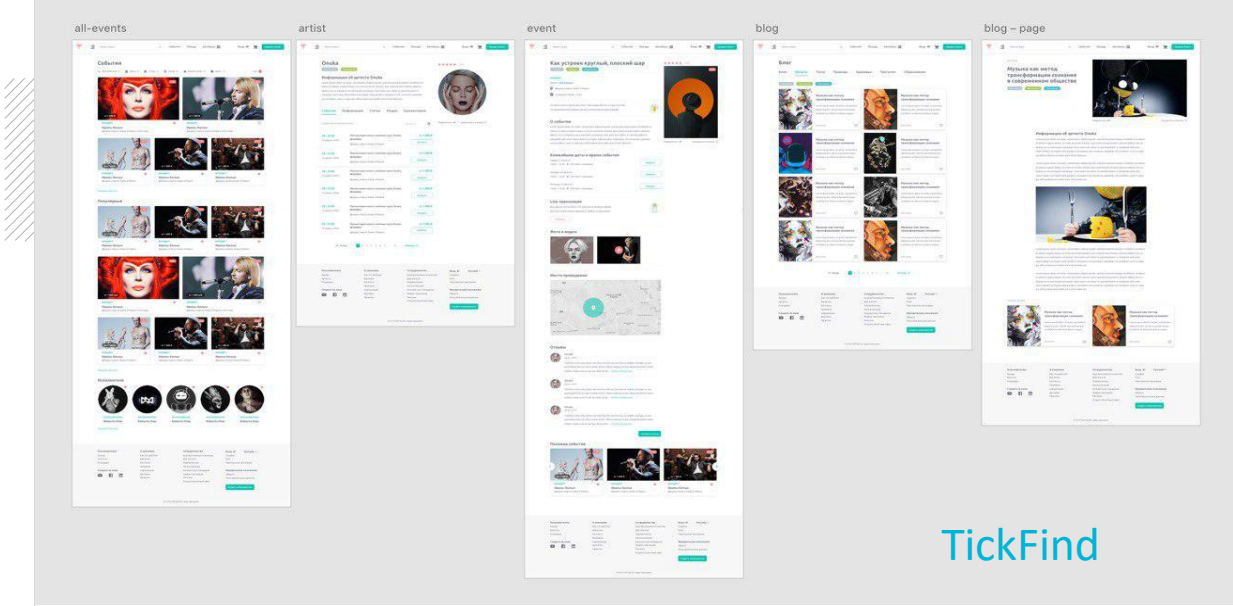
- The buyer can find a supplier for himself, his shop, restaurant, cafe and other enterprises, and the farmer is able to sell his own products.

The “Smart” accounting of energy resources

- Accounting devices with bi-directional communication installed on the consumer side.

Portable Cardiomnitor

- Continuous monitoring of cardiac activity at home.



Portable ultrasound machine

- Portable multi-purpose sensor with the ability to connect to a smartphone (iOS or Android) by USB type C connector.

Micro service for long exposure visual effect by the video

- Some camera and Photoshop effects emulation

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Tickfind.com

- Ticket operator (sale of tickets for concerts, theaters, sporting events, etc.), tickets for buses, dynamic pricing and a secondary market for ticket sales.

Exchange rate forecasting

- Currency fluctuations forecasting with Prophet

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