

[codeska.com](https://codeska.com)



# CODESKA

Product development Company  
for Land and Maritime Logistics

**WE ARE  
ENGAGED IN**



**WEB APP**



**DESKTOP APP**



**MOBILE APP**



**DATA SCIENCE**



**DIGITAL ADVISORY**



**INTEGRATIONS**



**MESSENGER BOTS**



**ANALYTICS**

# EXPERTISE

## Owner & Founder

10 years experience in maritime logistics: ship handling and chartering, port forwarding and agency service

*«When I first saw industry imperfection, I tried to fix it and was fully satisfied with the effect. That was the start of something great, and still, we have plenty of work to do!»*

## Lead Architect

Multimodal logistics 5 years: railway, air, sea and land transportation, warehouse logistics and forwarding

*«In my opinion, there should be as little ineffective work as possible in the world. IT products must stop striving to replace people. Instead, you should make IT products to help people.»*

## WE CAN HELP YOU WITH:

### 1. Field and farm management systems

- management systems for fields and agricultural machinery with reporting
- forecasting, planning, and **accounting for agronomists** in the field and for offices (also true for livestock departments)
- smart solutions for **livestock and poultry farms:** climate control and behavior control
- financial, **warehouse accounting** and **accounting for elevators** with tracking and management of stocks and balances, accounting for optimization and costs (fuel, containers)
- product classifiers, systems for recognition of crops types and their diseases
- integration of new solutions with the client's accounting system, etc.

### 2. Web platform for documentation

- automation of document circulation using optical character recognition of documents and their data
- automation of obtaining permits for foreign trade operations
- synchronization with the client's accounting system, etc.

### 3. Mobile application

- all of the above inside your smartphone with a notification system

### 4. Messenger Bots

- all of the above included to your favorite messenger in your smartphone

### 5. Data Science and Visualization

- exchange of inventory to avoid illiquid assets
- maintenance of working capacities (prediction of defective)
- financial analytics and transportation cost reduction, etc.



## ADVANTAGES

### **CODESKA vs MANUAL WORK**

Any manual work means that you inefficiently lose time and resources. Human errors may also lead to financial losses. Codeska analyses and propose the most effective products to reduce manual work.

### **CODESKA vs ERP SYSTEMS**

We don't say they are too bad. We don't say we come to help you to get rid of it. Codeska preaches an efficient approach and reasonable solutions that may integrate with every your ERP system.

### **CODESKA vs BAD SOLUTIONS**

Instead of using big box solutions that are rather hard to implement in all departments, Codeska provides microapp solutions that are quite easy to learn, don't take much budget, and able to integrate with each other. We dive deeply into your processes and make apps that are suitable for your employees.

### **CODESKA vs UNSTRUCTURED DATA**

Usually, there's no problem with how to get data. The major problem is the way you use it. Our Data Scientists create excellent and precise algorithms for logistics and commercial industry purposes. Check our cases below for more information.

### **CODESKA vs SUPERFICIAL APPROACH**

Creating software is one thing, but making it useful and convenient for the user is another. We may ask lots of questions, We dive deeply into your processes, and in the end, get something exceptional and valuable for you and your employees.

# CASES



## DIGITAL PLATFORM FOR GROUND CONTAINER TRANSPORTATION BY TRUCKS

Fully developed and integrated by the Codeska team, Obratka helps the management to hire and use container trucks and manage the fleet with a built-in TMS system. Implementing this platform reduced freight rates up to 30% and allowed fast truck processing in destination points.

Obratka also uses Machine Learning to predict freight rates and decrease logistics staff's everyday routine with calls and emails, making the process as much automated as it can do. A mobile app for drivers with tracking is also included.

### Task / Request

Our client came with technical documentation and asked to develop system that automatically matches consignor and carrier. The main goal of implementing this system was to decrease costs and enter Ukrainian market with this product.

### Relevance / Problem

Ground container transport automatization. This software is dedicated to relieve transport managers, has its own built-in TMS system and mobile application for drivers.

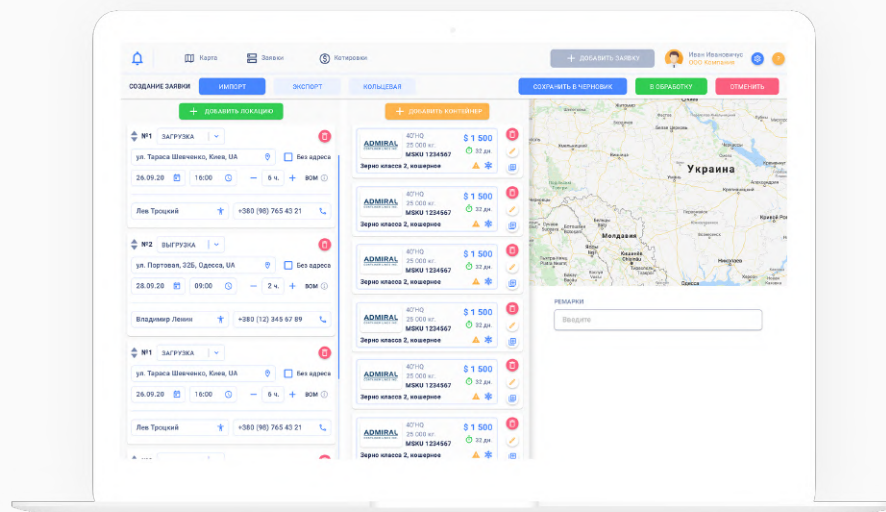
Obratka decreases time and increases probability to find suitable cargo/transport for the customer's needs.

### Solution

We were finding right solution by making several iterations. Our team focused on the main features and found that technical documentation lacks some roles. So, we dived deeply into the industrial reality and rewrote it.

Thus, carrier and hired driver got different functionalities and the screens of creating the order, route planning and GPS data collection were optimized during collaboration with focus group.

Project Page: [eobratka.com](http://eobratka.com)



### Project Status:

#### Date

July 2018 ~ Dec 2018 (dev. 1st iteration) | Mar 2019 - Aug 2019 (dev. 2nd iteration) | Nov 2019 - Mar 2020 (dev. 3d iteration)  
Mar 2020 - Sep 2020 (released, working) | Sep 2020 - Present (working on new iteration)

#### Developed

Web App &  
Mobile App

#### Team

8 people: BackEnd&FrontEnd,  
Mobile dev., QA, UX/UI, PM.

#### Users

Transporting about 150 TEU  
every month after release

#### Target Audience

B2B, Freight forwarders,  
Truck logistics, Commodity trade



## AUTOMATED RECOGNITION OF TEMPLATE DOCUMENTS

Special software based on Machine Learning algorithms created by Codeska for automated recognition of template documents. At this moment, BLOr works with Bills of Lading issued by container lines and fully kills manual work by managers as they don't need to put data into their ERP system by hand.

The special 'Export' function makes it a one-click procedure with a total speed up to 15 seconds per document and highest quality recognition by fields. BLOr supports all container lines documents in pdf and jpeg files and our team is getting ready to process with home BLs, invoices, and other types of templates.

### Task / Request

We wanted to create software that not only recognizes and returns text massive but knows which kind of documents it recognizes and returns information to necessary fields fast and accurately. We also wanted to make data extraction to ERP systems as easy as possible.

Of course, all of these processes are secured, and we do not store any confidential commercial information.

### Relevance / Problem

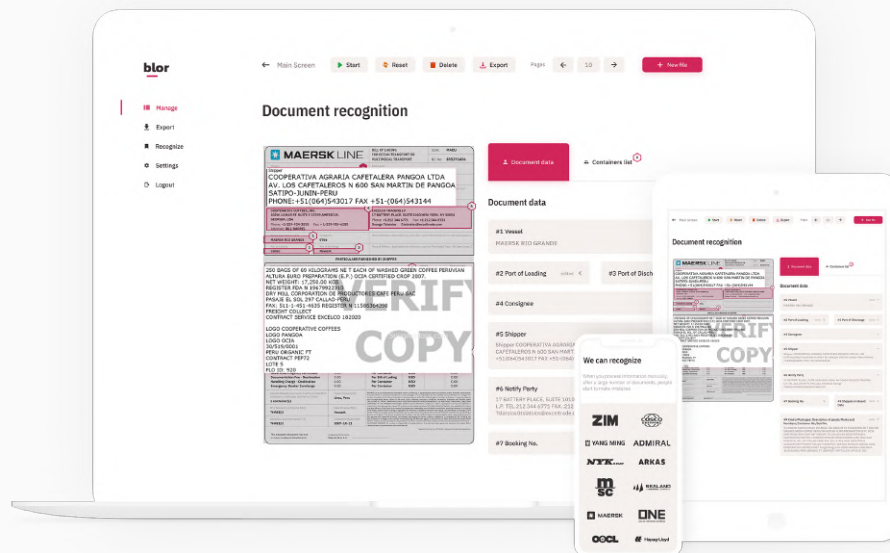
Most logistics companies, especially that work in container transportation, have bad practice of manual input of document data into their ERP system. This practice leads to human mistakes and extra work that may lead to higher operational costs.

### Solution

We decided to use Machine Learning technologies and special neural network for this application. Using algorithms made by our science team, we managed to get 99% of accuracy and up to 15 seconds of recognition time for the document.

Moreover, we developed and implemented one-click extraction to ease managers' everyday routine.

Project Page: [blor.com.ua](http://blor.com.ua)



### Project Status:

#### Date

Feb 2020 ~ Sept 2020 (*dev.*)  
Oct 2020 - Present (*re/leased*)

#### Developed

Web  
Application

#### Team

5 people: Data Science,  
BackEnd&FrontEnd. UX/UI, QA

#### Users

Up to 250 in 3 month  
after release

#### Target Audience

B2B, Freight forwarders,  
Co. with a large workflow

## SEA CONTAINER TRACKING SOLUTION

The web application we made to ease the tracking of containerized cargo by all participants of the supply chain. Managers can save, track, and manage the saved container list and look where the container is on the world map.

With our technologies, one may always get alert at the messenger and/or e-mail in case of situations that need special attention to occur. Our technologies may predict such variants and react accordingly

### Task / Request

The product was created after we were witnesses of a real case when the manager of a freight forwarder company didn't update the status of the container and this led to financial losses due to demurrage that needed to be paid.

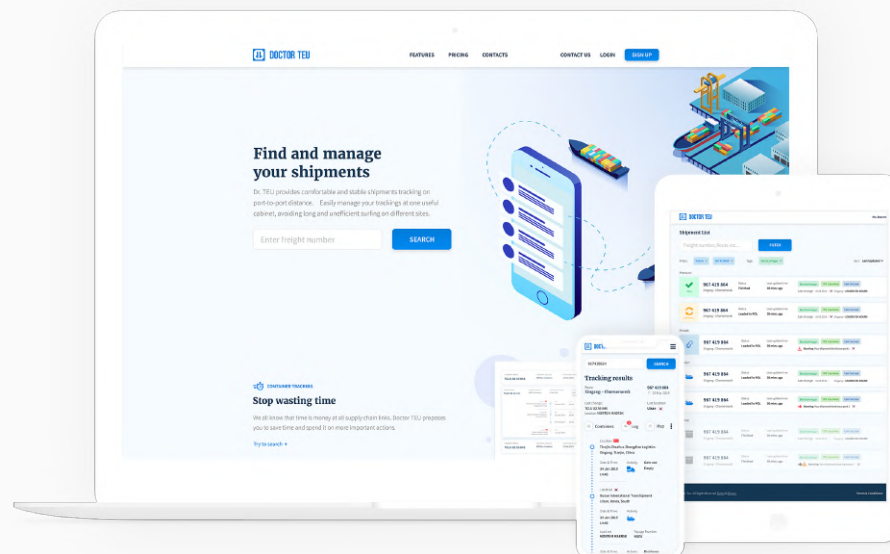
### Relevance / Problem

Dr. TEU traces containers loaded to the ship and alerts when something goes wrong, e.g. ETA is not correct, a client forgot to take a container at the destination port.

Dr. TEU also has a special management list to save shipments and Data Science groundwork of probabilistic logics to implement in the future.

### Solution

We made a Web application with a view to mobile application in the future. In MVP format, we made container tracking from three sources of information and different types of alerts.



### Project Status:

#### Date

Oct 2018 -  
Apr 2019 (*dev.*)

#### Developed

Web  
Application

#### Team

4 people: BackEnd&  
FrontEnd, UX/UI, PM

#### Target Audience

Freight forwarder, Shippers, Consignees, any company that involved into supply chain and wants to track cargo in container.



# FLDR

## FIELD MANAGEMENT SOLUTION

Web and the mobile application projected by Codeska for small and medium farms and agronomists with small but convenient WMS system, that integrates with ERP system of customer.

### Task / Request

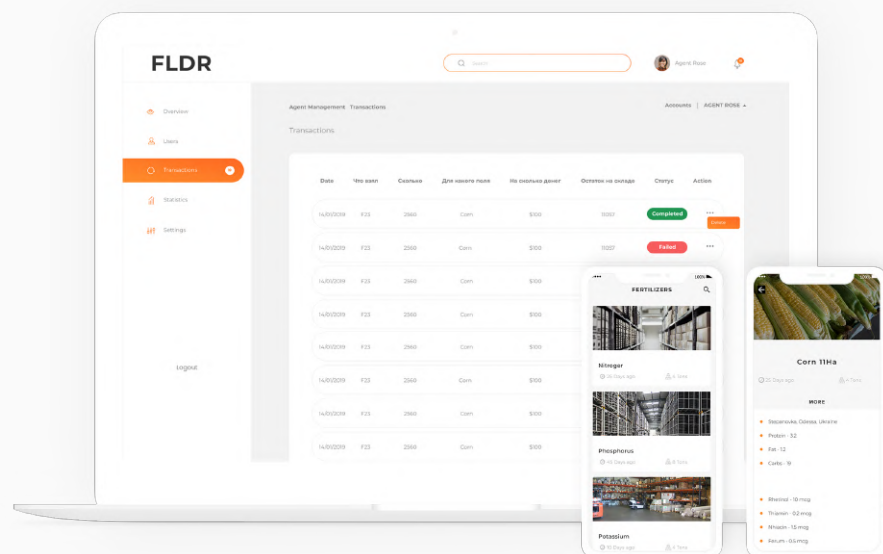
We were asked to develop a system with elements of WMS, Field management and mobile application for agronomists. Architecture of system implied integration of modules into system and making UX/UI as much simple as possible.

### Relevance / Problem

A big quantity of small/medium farms with land up to 3 000 hectares usually don't take much care about their processes for a variety of reasons. 90% of their data is traditionally put by hand by agronomists, warehousing is not digitalized properly and this leads to losses.

### Solution

We provided web and mobile application where web was designed for warehouses and financial management and mobile application is used by agronomists to track their material consumption per field (e.g. fertilizers). We also envisaged absence of mobile connection in the mid of fields, made security features and set automatic export of data into ERP system of customer.



### Project Status:

#### Date

Mar 2019 -  
July 2019 (*dev.*)

#### Developed

Web & Mobile  
Application

#### Team

7 people: BackEnd&FrontEnd,  
Mobile dev., UX/UI, QA, PM.

#### Users

Farms at the  
South of Ukraine

#### Target Audience

B2B and B2C - farms and  
agronomists working at farms



## CARGO FLOW SCIENCE SOLUTION

Web application made for data visualization and to improve performance of sales department of freight forwarding companies. Analyzing is made from different huge databases and thus reveals cargo flows on all the way of end-to-end supply chain, abling managers to find new customers 80% faster than by usual Excel way.

### Task / Request

On of freight forwarder companies situated in Ukraine tried to solve the issue and asked us to create an application that may ease managers'everyday routine work.

### Relevance / Problem

Sales managers of freight forwarding companies usually use Excel files of huge size (more than 40,000 lines) trying to sort and get data from customs and port databases to find new clients and close deals.

### Solution

The solution we provided lies in the field of web application combined with Data Science algorithms. That was a must because of customs and port databases filled by local managers by hand. This resulted in inconvenient perception of information while using it.

### Project Status:

#### Date

Jan 2018 -  
Mar 2018 (*dev.*)

#### Developed

Web  
Application

#### Team

5 people: Data Science,  
BackEnd&FrontEnd. UX/UI, QA

#### Users

NDA

#### Target Audience

B2B - freight forwarding  
companies and their managers



# DATA SCIENCE & MACHINE LEARNING TECHNOLOGIES

The importance of Data Science and Machine Learning cannot be underrated.  
Here's how we cope with many problems in the industries by using these technologies:

## Logistics

Data Science and ML algorithms are used to route optimization, making you know where is shortage or oversupply of fleet on your routes.

Machine learning is also used for forecasting demand, trying to predict prices/loading/total market situation and forecast it at least for a week.

Using large sample of data, we can use so-called monitoring of anomalies, which is very useful for security reasons (hijacking, drunk drivers etc.).

Combining with Computer Vision technologies, we make powerful products from that.

**If you didn't find your industry  
but you know it can be useful for you  
- we will gladly help!**

## Commercial

*(trading, shipping, risk management):*

We use Data Science in different way to make so-called probabilistic logics, where we analyse the market and predict situations and count it at percentage level. We use a wide variety of algorithms and pick the most suitable or use different - it depends on the task type.

Machine Learning technologies can also be used in controlling the quality of production at factories and plants, lowering product defect rates.

## Agriculture

Data Science in Agriculture can be used in different ways: from market and risk management (see commercial) to field management, weather forecasting and plant's life: we may use lots of photos to determine plant diseases.

## TESTIMONIALS

### CISS Group Ltd

Dmitry Filipchyk, CEO

We cooperated with Codeska to automatize our documentation. They also provided us with some great ideas and improved processes.

While the survey is a very sensitive industry, we're very satisfied with Codeska work and looking forward to reaching heights with them as our digital partners.

### Global Ocean Link

Andrew Dunaev, Managing Director

Codeska team created a pack of products that we use. They were also involved in our software development and showed great professionalism and a deep understanding of logistics processes.

We appreciate their work and continue to cooperate with the Codeska as our biggest IT partner.

## CONTACTS

**Let's talk about our possible partnership!**

Or text me if you have any questions!

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