

# ABOUT US

DSE Ltd is founded after nearly 10 years of experience in the field of Data Science and more than 30 successful projects.

Data science, machine learning, data engineering, artificial intelligence and MLOps are how we fill our days.

Several of our team members have PhDs; some are in the top 5% on Kaggle and Upwork.

We also work with researchers, mathematicians, and software developers.



# SERVICES

We serve many areas with our sophisticated solutions. Including—but not limited to—the following



#### Consulting



#### Support

Business consulting based on data Support and development of datadriven strategy



#### Strategy

Data Strategy planning (data collection, data storage, sales funnel planning, etc.)



#### End-to-End

Management and development of projects related to complete artificial intelligence from A to Z.



#### Recommendation systems

User and product profile building using learning algorithms



#### **Machine vision**

Image-based data collection and evaluation



#### **Text**

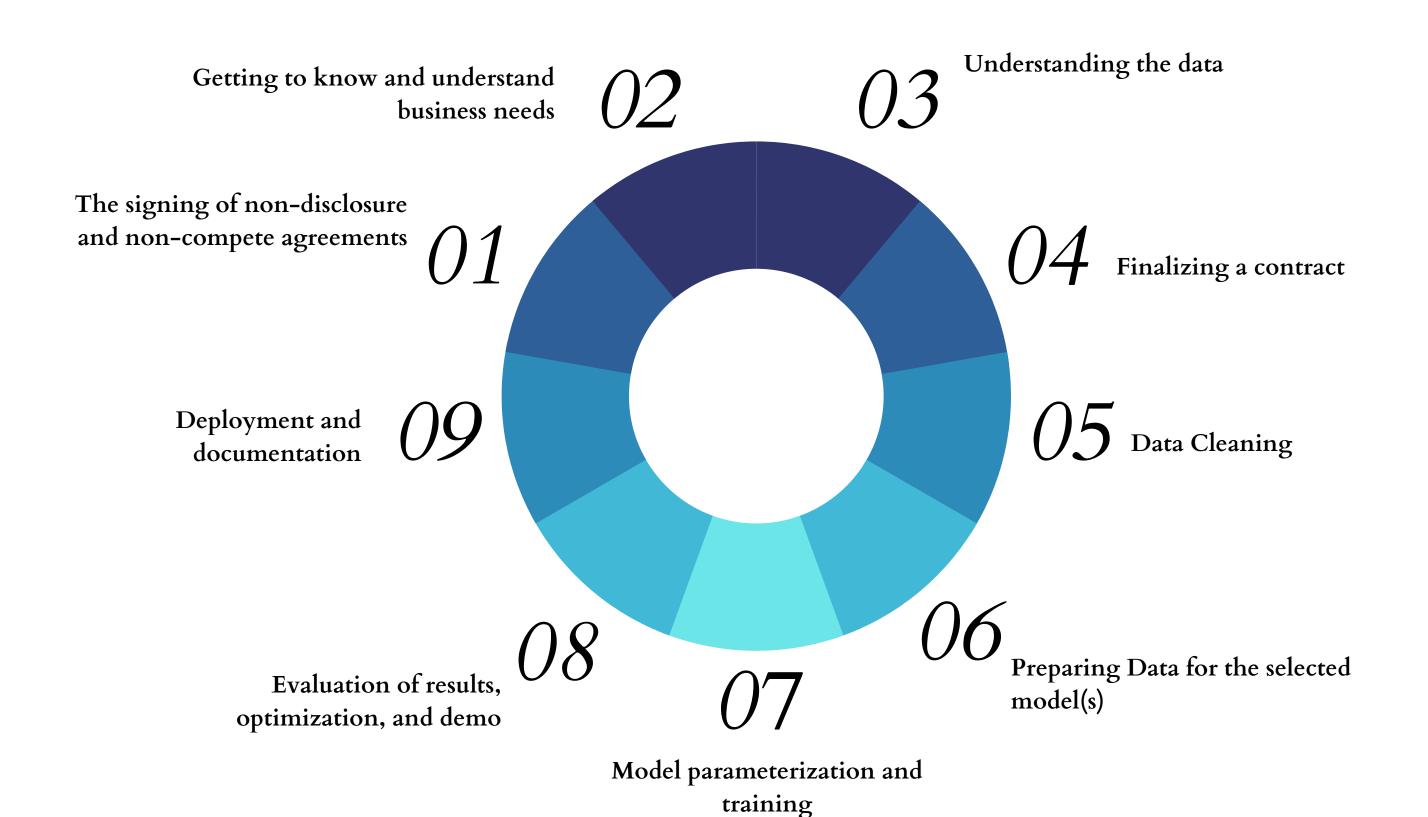
Text analysis and text mining



#### **Time Series**

Analytics and prediction of time series

# WORKING WITH US



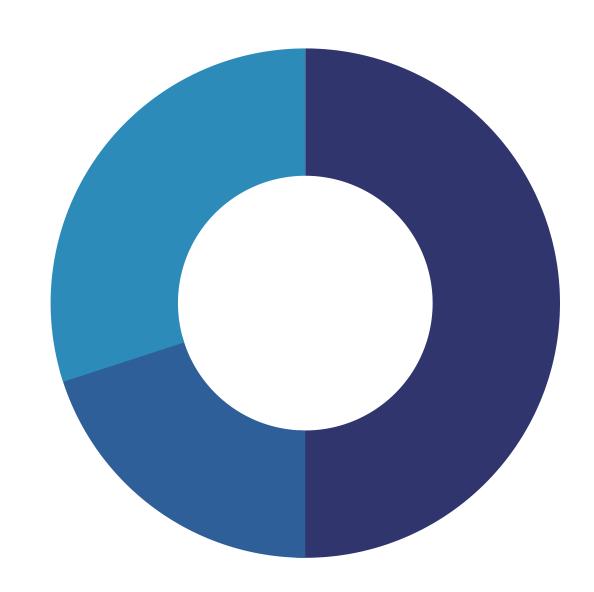
# STACK

#### Developer skill set

- Python
- R
- Matlab
- SQL
- Java
- C#
- JavaScript
- Ruby
- TypeScript
- HTML, PHP

## Product & Client Support Team

- Project manager
- Accountants
- IT infrastructure
- Software Testers
- Data Analysts
- Marketing managers



# Frequently used Data Science Frameworks, Platforms, Tools

- Flutter
- React
- Tensorflow
- Keras
- Scikit-learn
- Pytorch
- Django
- Spark
- SQLAlchemy
- Pandas
- Numpy
- Scipy
- NLTK
- Spacy
- Gensim
- Plotly

- Matplotlib
- Tableau
- PowerBI
- Kibana
- Docker
- Kubernetes
- Openshift
- Jenkins
- RailsSinatra
- Sencha, Yii2
- Wordpress
- Vaadin
- OpenCV
- Pytessarct

## Customer defection analysis & prediction

We provide a demonstration of how much revenue can be increased with a 10% reduction in churn. Typically, we can reduce churn by 10-50%

Analysis: Why customers change services. Prediction: Users close to defecting can be targeted with offers and suggestions.

# Developing a data strategy

We help you determine what data to collect and how to maximize its potential.

#### **Computer Vision**

Nowadays, with the growth of storage space, an increasing amount of images and videos are available on the Internet. We handle object recognition, identification and detection.

# FREQUENTLY REQUESTED SERVICES

## **Conversion Optimization**

We use data science and machine learning to understand why a visitor converts. Increasing conversions: Improving your business by utilizing artificial intelligence-based services behind an API.

# OUR PARTNERS

We work with partners from many fields and industries around the world.
We have a breadth of experience and are always open to exploring new opportunities.



# OUR PROJECTS

## Detection of lung cancer using artificial intelligence

Detection of lung cancer from radiological images. Collaboration with research physicians and hospitals.

Keywords: lung cancer segmentation, cancer diagnosis, radiology, computer vision, MLOps

# Smart building project with machine learning algorithm

Today, many well-equipped buildings store various data. Using a machine learning algorithm, we searched for patterns in user activities and increased energy efficiency. Keywords: smart building, machine learning, time series forecasting, MLOps

## Detection of hate speech on the Internet

Online hate speech is extremely dangerous; hatred can even devolve into action, and in some cases, cause serious psychological deformities in those subjected to it. We have created an artificial intelligence-based algorithm that can identify hate speech in Hungarian texts, whether that text comes from social media platforms, news, or blogs.

Keywords: online hate speech detection, machine learning, neural network, NLP (Natural Language Processing)

#### Customer churn prediction

Gaining a user costs a lot of money, so keeping them is very important. If a company knows, at the appropriate time, which users are likely to defect, they will be able to find these users promptly and offer them a convincing opportunity to stay. The goal, in this case, is not just to create a prioritized list, but to ascertain what factors play a role in churn and the optimal time to intervene.

Keywords: Marketing, churn, machine learning, data visualization

#### Wind turbine failure forecast

By collecting data from the sensors, we predicted and classified the expected failure of wind turbines.

Keywords: Industry, wind farm, neural network, hyperparameter tuning

## Development of a HR recommendation system

For freelancers, our algorithm is able to select the projects that are most attractive and relevant to them. Likewise, we show clients the best freelance and entrepreneurial professionals.

Keywords: NLP (Natural Language Processing), machine learning, neural networks, recommendation systems, MLOps

## Dynamic pricing

Our customer has a subscription model in which users can select a custom package according to their preferences. Using artificial intelligence, the prices of these packages are calculated proportionately to the expected business benefits of that user.

Keywords: dynamic pricing, machine learning, MLOps

#### Determining potential subscribers

It is advantageous for a marketing team to consider: What specific visitors already know about the company? How often do they visit the site? What were their previous activities on the site? By answering these questions, one can utilize targeted marketing to improve their conversion rate. In one of our projects, we searched for and found answers to these questions. Keywords: marketing, machine learning

## Database cleaning with machine learning algorithms

Used car dealers often enter incorrect data related to the cars in the databases, such as car type, engine displacement, and the number of doors. It would take years to correct these entries manually. In addition to detecting and correcting erroneous data, we also showed, by data visualization, in which cases and how often the various errors occur.

Keywords: machine learning, data visualization

#### Customer referral system

Regardless of the economic climate, every for-profit company wants customers. Our product offers clients new customers in the B2B sector.

Keywords: NLP (Natural Language Processing), machine learning

## Development of a semi-automatic system for application submissions

Most applications must be submitted with various accompanying documents. Our algorithm facilitates this work for the applicant by using machine learning algorithms to collect a list of documents to be filled in, even from scanned pdfs. It can even identify individual document templates and automatically fill in certain aspects with the applicant's details. We not only developed this learning system to address this challenge but also created a web interface to interact with it.

Keywords: NLP (Natural Language Processing), machine learning, neural networks, REST API, web development, UI

#### Fraud detection

Our client's problem was that employees took advantage of certain situations by secretly writing false consumption data to the administration, to the company's detriment. By employing our machine learning algorithm, the client could predict these activities. Keywords: time series forecasting, fraud detection, neural networks

#### Article recommendation system

Recommend articles to users based on what the user has already opened, read, or rated. Keywords: Referral system, machine learning

#### Facilitate customer service work

With the help of our algorithms, clients have been able to speed up the work of their customer service staff so much that they can complete their work twice as fast and with greater accuracy, thanks to machine recommendations.

Keywords: NLP (Natural Language Processing), machine learning, neural networks, REST API

## Recognize the best scenes from streaming videos

Users of our client, a game development company, often stream on YouTube while they play, usually creating 4-5 hour videos. Our job was to find the best scenes in the video so that our client could create a 2-3 minute highlight video out of them.

Keywords: video, stream, youtube, comment

#### Stock market price forecasting system

We have been working in this field for 10 years, developing automated stock robots as part of a recreational team.

Keywords: stock market, time series forecasting, machine learning, neural networks

# RECOMMENDATIONS

"Gerzson was great! From understanding our needs and execution to reporting. Highly recommended."

## Jeremy Brooks - CEO of Hideaway Report

"I worked with Gerzson on two projects. In the first project, he was responsible for test automation and automatic measurement evaluation. He had deep competencies in the use of the Matlab software and with his help the project was able to realize stable progress in this area. He brought new ideas and developments to the topic, with which we achieved an increase in test coverage.

His work and plans were neat. His precise work was exemplary. His communication is clear and to the point. He continued to develop his professional competences and continues to develop them to this day, which he also used in an innovation project at our company. Machine learning solutions and algorithm designs provided the project with such foundations that it continues to operate successfully to this day. The plans you made earlier provide a very stable basis for continuing. It was obvious that this field motivates him a lot and he likes to work on it even in his spare time. The knowledge he acquired in this field also brought him professional recognition. He received several positive customer feedbacks regarding this project. I value him professionally and personally."

Róbert Görög evosoft Hungary Kft. | Project manager, Team manager

"This is the first time that I have worked with Gerzson but I was so impressed with his expertise and great overall service. He communicated often with me and I am extremely satisfied with the end outcome."

#### Christopher A. Williams - Co-founder at Boardman & Williams GbR

"Gerzson did an awesome job. We've had several other freelancers do similar work, but the work Gerzson did was the best. I hope to work with Gerzson again on future projects and would have no hesitation to do so."

Nathan Black - Chief Data Scientist at QuantHub

"Gerzson is a highly-talented and responsible guy with very good communication skills. I enjoyed working with him!"

German Engineer

# OUR NEXT SUCCESSFUL PROJECT IS YOURS!

Where can you find us?



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datascienceeurope.ai

#### Business card









