# Machine Learning – Computer Vision and Processing

Leverage the power of ML and analyse images to extract useful insights and improve your performance in various areas across your organisation.



- Powerful computer vision and content generation tools
- Solutions for objects classification and segmentation as well as object tracking in videos
- Generative AI for creating brand new images and for modifying existing ones
- Solutions allowing you to analyse your customers behaviour as well as their age
- Robotisation and security monitoring support enabling you to detect phenomena in real time

#### as a result you can

Tackle your company's challenges and difficulties in the following areas:

- Inventory management
- Quality control and inspection
- Customer experience
- Production processes optimisation
- Safety and security
- Personalised marketing content creation
- Product development

- Design and visualisation
- Customer behaviour and sentiment analysis
- Employee performance analysis
- Automation of manufacturing processes
- Equipment maintenance and inspection
- Real-time monitoring and threat detection





#### What are the benefits

- You will increase the efficiency of your processes via the automation of tasks, which will free up your time and resources and enable you to relocate them
- You will be able to make faster and more reliable, data-driven decisions that will help you stay ahead of the competition
- You will increase your business's reliability by minimising errors and inconsistencies in your processes
- You will greatly enhance your organisation's security thanks to realtime monitoring and threat detection capabilities



Data collection

Data preprocessing

Text representation

Model training

Model evaluation

Deployment

Monitoring

#### Our tools and technologies:

YOLO, TensorFlow, Pytorch, Keras, OpenCV, Cloud providers' services, Scikit-Image, Python

# Al Integration and Delivery

Leverage the latest advancements in AI - improve operations & achieve your business objectives.



- The integration of AI technologies with your existing systems and processes and their optimisation for maximum efficiency
- Ongoing support to ensure that the solutions continue to deliver the best results over time

#### as a result you can

- Reduce risks by detecting potential fraudulent activities and equipment failures early as well as by analysing your data in much greater detail
- Increase your revenue by identifying trends and patterns in your clients' behaviour to create more personalised campaigns and attract more potential buyers
- Prevent churn by improving your current clients' satisfaction and customer experience
- Save costs and time by optimising processes and automating repetitive tasks

#### Al Integration and Delivery – what you need to know

- You will get the support of our Al/ML experts who have vast experience in building and deploying Al/ML solutions and who are more than happy to offer advice and flexibly adapt the processes to your changing needs
- The AI/ML models will be developed with up-to-date, innovative technologies
- Our specialists build customised solutions with the possibility of creating an interactive PoC to test out your ideas





#### What are the benefits

- You will increase the efficiency of your processes via the automation of tasks, which will free up your time and resources and enable you to relocate them
- Your customer service will improve thanks to quick and personalised assistance
- You will get valuable insights from unstructured text data, otherwise impossible to obtain, which will help you make better and data-driven decisions
- All of the above benefits translate into measurable cost and time savings for your business

#### THE WAY WE DO IT

Data collection

Data preprocessing

Feature extraction

Model training

Model evaluation

6 Deployment Monitoring

#### Our tools and technologies:

Python, scikit-learn, Microsoft Azure, AWS, Tensorflow, keras, data visualisation

## **Al Training** and Education

Artificial Intelligence and Machine Learning training to leverage these technologies to innovate your products and services.



- Our experts' vast knowledge and expertise regarding Al/ML solutions and their benefits
- A detailed assessment of your business in terms of being ready for Al/ML digital transformation
- The ability to collect and analyse data in an informed manner to leverage Al/ML potential for your benefit

#### as a result you can

- Use your newly acquired knowledge and realistic expectations necessary to introduce the technology in a smooth and effective way
- Join the businesses with AI/ML products in the market and stay ahead of the game
- Avoid the misguided investments in AI/ML solutions

#### Al Training and Education - what you need to know

- We tailor the programme by interviewing your staff and assessing your existing knowledge
- The training and materials will depend on the target groups and their size
- The training may take place at your company's site, at Future
   Processing's headquarters or online we will gladly adapt to your
   needs

#### What are the benefits

- You will be able to use your knowledge about the Al/ML strategy to make informed business decisions
- Your trained staff will tackle Al/ML projects with confidence
- The risk management will improve through the introduction of new metrics based on AI/ML
- Your organisational efficiency will increase thanks to your new abilities to analyse, process, and uncover innovative information from your already existing datasets



# AI TRAINING AND EDUCATION

## The way we do it

Featured domains of Machine Learning:

- NLP
- Computer Vision
- Timeseries
- Classification
- Classical Machine Learning



## **Al Readiness**

Determine the current state of a company's capability to adopt Artificial Intelligence or Machine Learning solutions.





A detailed report based on a thorough audit of your company's readiness to implement and leverage Al/ML technology.

#### as a result you can

- Make data-driven decisions instead of relying on gut feelings
- Decide with much greater confidence if your idea of an investment in AI/ML will succeed
- Focus on overcoming any potential obstacles and pain points highlighted in the report in case of poor AI/ML readiness

#### What are the benefits

- You can rely on factual information from the report and make data-driven decisions
- You get a full report with your business's strong and weak points regarding AI/ML readiness
- You know what to do next in order to improve your AI/ML readiness score
- The assessment of your company's readiness is quick, but thorough

# **Al Strategy** and Planning

Plan your AI/ML strategy and lead your company towards gaining the status of an innovative business.



- Expert support in planning your Al/ML organisation strategy
- Interviews and workshops that aim to determine when your business's infrastructure and staff will be adequately prepared for such a change
- A detailed roadmap of each step that you have to take to implement
   Artificial Intelligence and Machine Learning technologies smoothly

#### as a result you can

- Act according to a specific plan for the most effective execution of the Al/ML implementation in your organisation
- Understand where you are on the implementation roadmap
- Prepare for the challenges ahead and decide how to tackle them beforehand

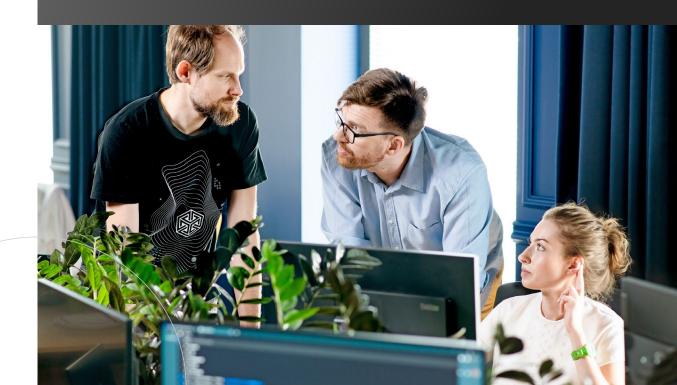
#### The way we do it

The service is tailored to your specific needs, but our offer always includes:

- Interviews
- Workshops
- Documentation describing the roadmap



- You will know what stage your business is at and what you need to do to leverage the newest AI/ML technology
- You will get a thorough implementation plan, which includes all the necessary steps for a seamless roll-out of your AI/ML solution
- You will be able to plan the costs appropriately for each stage of the strategy roadmap



## Machine Learning – **NLP**

The development and delivery of the Machine Learning NLP models for tasks related to the analysis of text.



**Natural Language Processing** focuses on enabling computers to understand, interpret, and generate human language. It involves using algorithms and statistical models to process and analyse natural language data, such as text and speech, and has applications in a wide range of industries.

#### What you get

Machine Learning Natural Language Processing models specifically tailored to your organisation's needs and goals, for example:

- Translation and interpretation services
- Summarisation and categorisation of texts
- Sentiment analysis in reviews or customers' claims
- Chatbots, virtual assistants
- Question-answering machines
- Named-entity recognition (NER)
- Quick and effective fact-checking

#### as a result you can

Use the state-of-the-art Machine Learning NLP algorithms that:

- understand human language
- generate human language
- translate and perform language transfer activities
- retrieve information and leverage text mining
- are conversational agents



#### Worth knowing about this service

- You will get the support of our Al/ML experts who have vast experience in building and deploying NLP solutions and who are more than happy to offer advice and flexibly adapt the processes to your changing needs
- The NLP models will be developed with up-to-date, innovative technologies
- Our specialists build customised solutions with the possibility of creating an interactive PoC to test out your ideas





#### THE WAY WE DO IT

Data collection

Data preprocessing

Model evaluation

Deployment

Monitoring

#### Our tools and technologies:

NLTK, Stanford CoreNLP, SpaCy, Gensim, TensorFlow, keras, Hugging Face

Text representation

Model training

and data-driven decisions

savings for your business

What are the benefits

assistant

disabilities

You will increase the efficiency of your processes via the

your time and resources and enable you to relocate them

You will get valuable insights from unstructured text data,

otherwise impossible to obtain, which will help you make better

The accessibility will be improved thanks to the facilitation of communication and easier access to information for people with

All of the above benefits translate into measurable cost and time

Your customer service will improve thanks to quick and personalised assistance in the form of a chatbot or a virtual

automation of tasks such as text classifications, which will free up

# Machine Learning – **Business Insights**

Perform activities such as churn prediction, time-series analysis, recommendation engines, customer profiling, and fraud detection thanks to advanced ML models.



- Machine Learning experts' knowledge and expertise to leverage in the individual environment of your business
- Our specialists who work closely with your organisation and understand your needs and goals in order to create custom solutions that will derive meaningful insights from your data
- Advanced predictive models created with state-of-the-art technologies

#### as a result you can

- Make informed, data-driven decisions
- Predict churn determine which clients are most likely to leave and take steps to prevent it much earlier
- Analyse time series decide about inventory management, resource allocation, or production planning in a much more efficient way
- Create personalised product recommendations via recommendation engines in order to improve customer satisfaction and increase sales
- Tailor marketing and sales activities to specifically chosen groups (customer profiling)
- Detect fraud easily, prevent financial losses and protect your customers and business's reputation



#### Worth knowing about this service

- You will get the support of our AI/ML experts who have vast experience in building and deploying Machine Learning solutions and who are more than happy to offer advice and flexibly adapt the processes to your changing needs
- The Machine Learning models will be developed with up-to-date, innovative technologies
- Our specialists build customised solutions with the possibility of creating an interactive PoC to test out your ideas



#### What are the benefits

- The automation of tasks and processes brings about their significantly increased efficiency and free up your time and resources
- You will get valuable insights from unstructured text data, otherwise impossible to obtain, which will help you make better and data-driven decisions
- The accessibility will be improved thanks to the facilitation of communication and easier access to information for people with disabilities
- All of the above benefits translate into measurable cost and time savings for your business

#### THE WAY WE DO IT

Data collection

Data preprocessing

Feature extraction

Model training

Model evaluation

6 Deployment Monitoring

#### Our tools and technologies:

Python, scikit-learn, Microsoft Azure, AWS, Tensorflow, keras, data visualisation