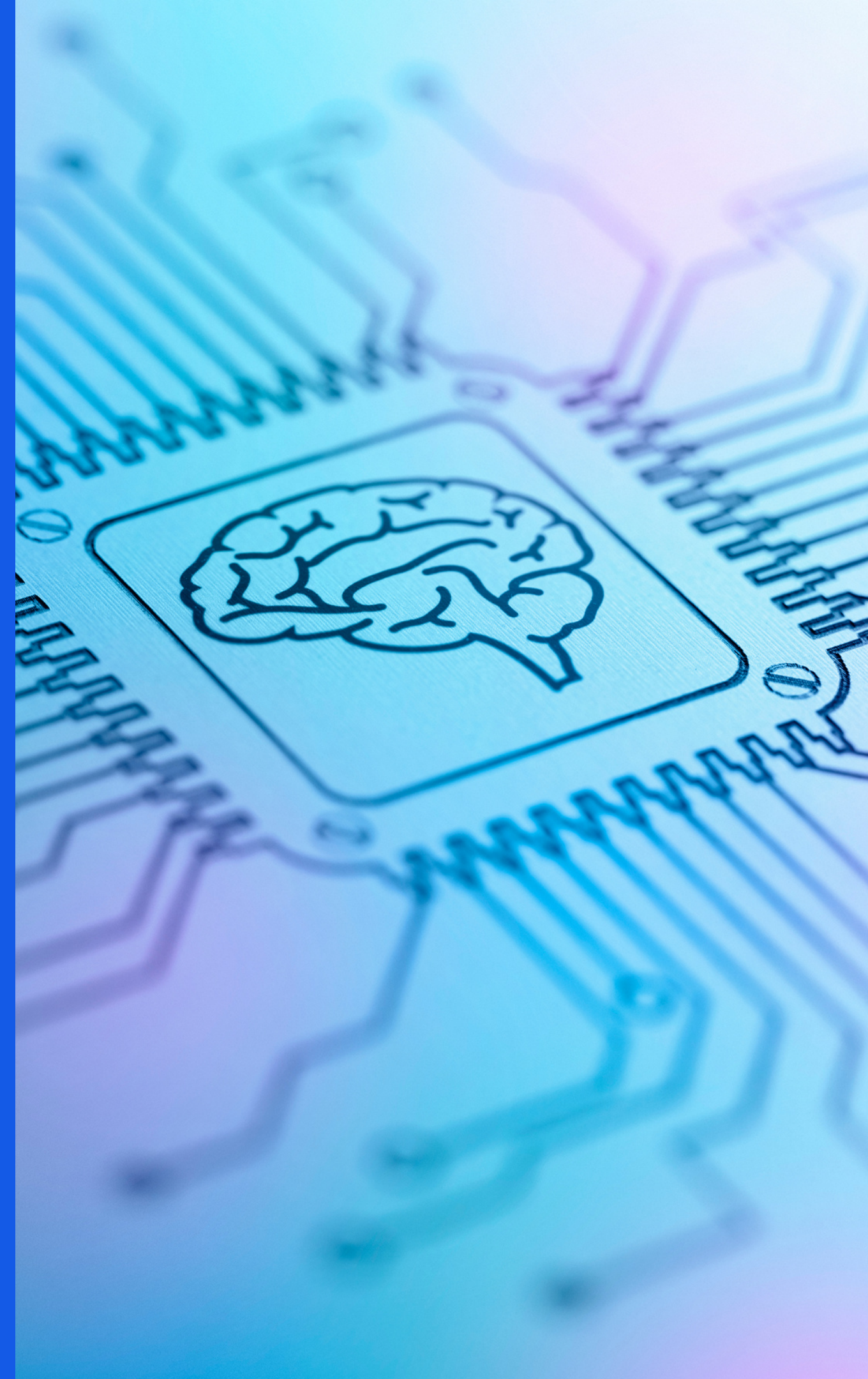# QR SOLVE

Artificial Intelligence

Covered AI areas

Machine Learning

- Speech recognition: using available networks or training a network to recognize or simulate a human voice, analyzing voice as a chat bot agent
- Image recognition: generating images from text, describing images, detecting objects in images
- Planning: using data to plan specific activities and events. Predicting failures, problems and preventing failures
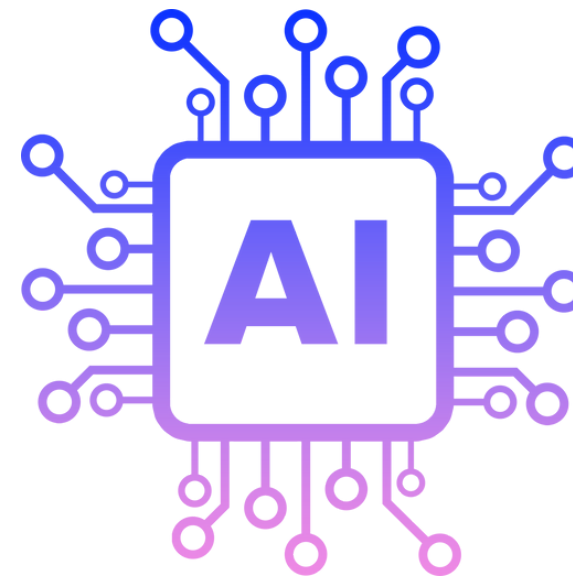
NLP

- Creating and training NLP models
- Texts sentimental analysis
- Texts reconstructions
- Smart assistants
- Texts analysis

Data Mining

- Internet of Things data analysis
- Banking and financial data analysis
- AML & KYC solutions
- User behaviours analysis
- Supply chain management

Computer Vision

- People, animals, cars detection
- Face, age, sex recognition
- Self driving vehicles
- Medical anomaly detection
- Texst parsing

Recommendations

- E-Commerce recommendation systems
- Banking-mass marketing
- System user intelligent advisor
- Supervised learning & Bayesian network to clasify the data
- Using managed services like Amazon Personalize

Our scientific background of AI

Artificial intelligence is one of the most advanced branches of science. Deep academic mathematical knowledge is required to innovate in the fields of AI and ML.
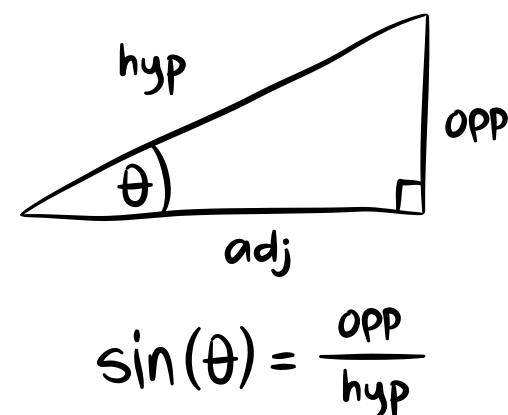
Stanford Certification

Our engineers and managers have certificates from Stanford University - the number one university in the world dealing with artificial intelligence

Bern University

We learn and listen to the most professional voices in the AI environment, working closely with scientists and professionals from the COAST group

Mathematics Graduate

In our Data Engineering team, in addition to programmers, we also have mathematics graduates, thanks to which we can train advanced models and use sophisticated algorithms

Team members with Ph.D

Delivering innovation means solving new and unexpected problems, and this wouldn't be possible without the PhD scientists who support our most challenging innovations

Mathematics background

We use algorithms, models and mathematical definitions to solve real cases

Machine Learning

- Linear regression
- Linear classification
- Stochastic Gradient Descent
- Backpropagation
- Differentiable Programming
- K-Means algorithm

State-Base models

- Backtracking Search
- Depth-First Search
- Breath-First Search
- Dynamic programming
- Uniform Cost Search
- Colling Algorithm
- A* Search
- Relaxation
- Markov Decision Process
- Monte Carlo Model
- SARSA
- Q-Learning
- Minimax
- A-B Prunning

Variable-Base models

- Arc Consistency
- Beam Search
- Local Search
- Treewidth
- Gibbs Sampling
- Probabilistic Programming
- Markov Networks
- Bayesian Networks

How to adopt AI in your business?

By using artificial intelligence, you can significantly increase your company's competitiveness and innovation like never before

25%

Describe us your business challenges

Identifying "what" should be done rather than "how" is crucial in selecting the most appropriate methods, tools and architecture design. Having a full picture of the business, challengess and problems we can start our conceptual work

50%

Let us to propose AI & automations

Each initiative we start from deep analysis, preparing business and technical architecture. Having a good picture of problems to solve we can suggest efficient tools, programs, algorythms and solutions to solve the real business problem

75%

Implement changes

Delivering in iterations allows you to collect feedback on an ongoing basis, monitor progress and adapt the product to the changing market and needs. This is the basis for full transparency. After reaching the individual milestones, the product goes into production in a few minutes.

100%

Make benefits and grow

Fast and frequent delivery of the product to the market allows for verification of the fulfillment of its needs. Gathering feedback and making the necessary adjustments is the basis for success.

Put a missing puzzle and unleash business potential

By solving business problems in a modern way, we become a proven Technology Partner in the field of AI solutions

Process automation

Artificial intelligence can be used to manage business processes and process robotization to improve and scale decision-making across the organization. Together with computer vision, we call this intelligent automation

Make predicitons

Using machine learning methods and models such as classification, clustering, time series, linear model, K-means, and gradient boosting can be used for predictive analytics. Mathematical algorithms and tools allow us to implement predictive and intelligent AI applications

Increase security

Cyber security can be enhanced by adding AI algorithms. Analysing data type and traffic is a first step to build more predictive, secure and resilient systems less susceptible to hacker threats

Supply chain optimization

Artificial intelligence can accurately predict future demand through data analysis, enabling systems to optimize inventory levels, improve supply chain processes and reduce the risk of stockouts or overstocks. This type of supply chain automation is only possible with AI

Risk management

In financial operations, the anti-money laundering requirement can be fully met by systems containing AI/ML elements. Tracking a user and collecting information about their travels is the basis for predicting potential malicious activity on their account

Increase innovations

All these factors significantly increase the quality and maturity of software, which evolves to the next level in the cyber ecosystem. To be more competitive in the market, market leaders should rely on the latest trends and best practices
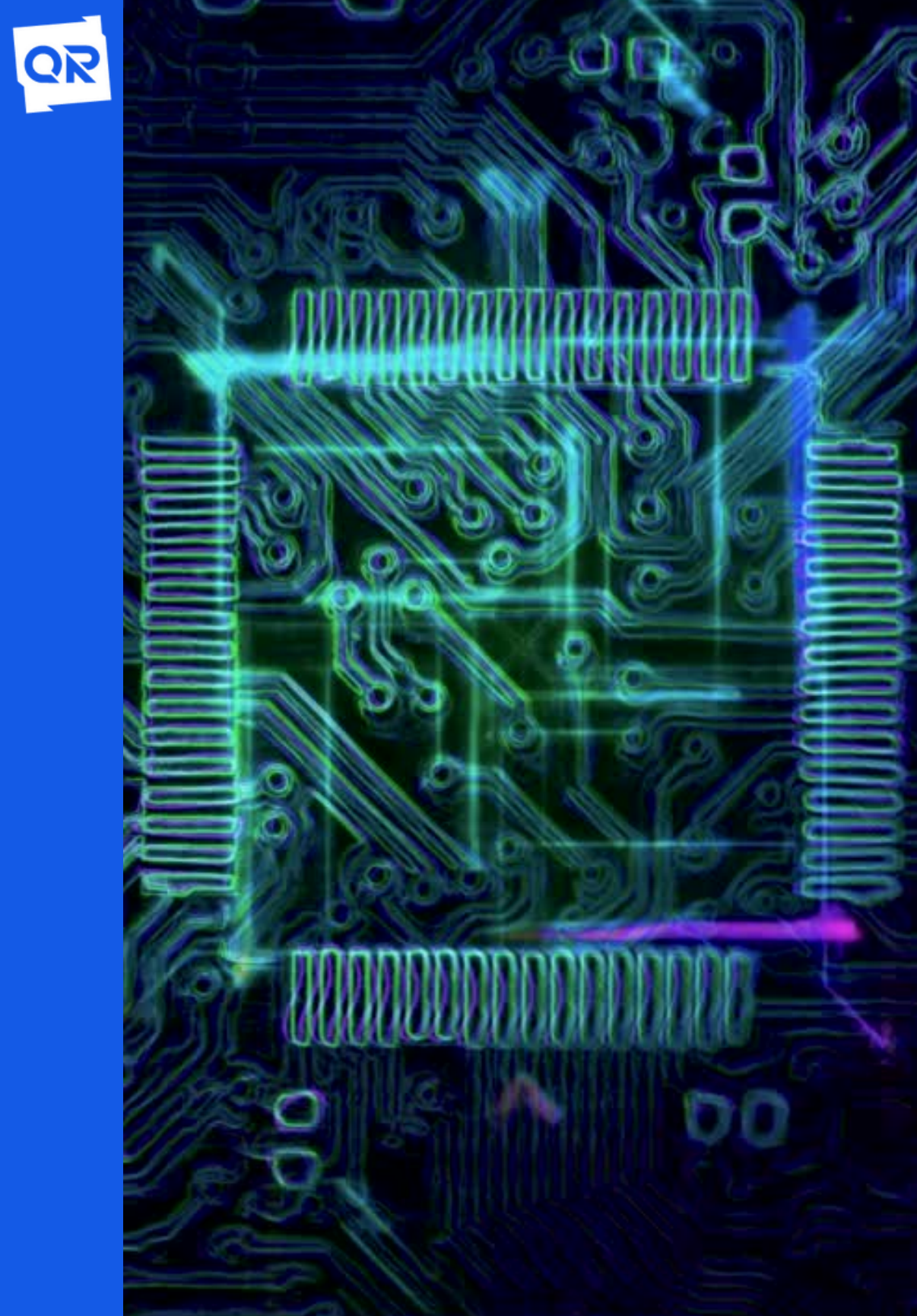
Technology to build AI

Cloud Services

Using Amazon and Azure AI SaaS solutions such as: Poly, Transcribe, Lex, Translate, Understand, Text we provide advanced AI solutions such as:

- Analyze images and videos
- Detect defects and automate inspection
- Utilize computer vision at the edge
- Extract text and data
- Automate speech recognition
- Give your apps a voice
- Detect abnormal machine conditions
- Predictive maintenance
- Store and analyze health data

Bespoke Services

To provide innovative software, we also use:

- Modern programming languages to implement AI algorithms: Python, Java
- AI frameworks to solve unique business problems like PyTorch and TensorFlow
- Using pre trained neural networks for text, vision, vice recognition
- LLaMA - 65-billion-parameter large language model
- Bank of basic and advanced mathematics algorithms definitions and models

GAIN A BUSINESS
ADVANTAGE WITH THE
RIGHT TECHNOLOGY

Case studies

Sentiment analysis

Processing user comments and making assessment of the movies or other offered content. Increase quality of the data and giving the possibility to suggest user the right content to show.

e-commerce

Asset tracking

Predictive system based on RFID tags to gather the information about asset travel, warehouse and goods availability.
Saving time and increasing delivery time for goods.

IoT

Chat bot

Analyzing user needs in an automated manner, without involving the operator in solving the problem. Save users time, improve user experience and increase help availability

Fintech

Anomaly detection

In financial applications, it is very important to predict anomalies and react quickly to avoid data leakage. In the case of an IoT system, it prevent failures and damage the hardware components

Industry

Thank You

We're here to help you

Your proven Technology Partner

QR SOLVE

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