



Magic LEMP

Company presentation

Our core business



CONSULTING



RESEARCH



SKILLS TRAINING

Tailored AI by experts, for you

Our team

- The founders



Raphaël David Lasserri

Founder, CEO

PhD in nuclear physics

Former student of Ecole Normale Supérieure of Paris-Saclay



Marie Chupeau

Co-founder, R&D projet leader

PhD in theoretical physics

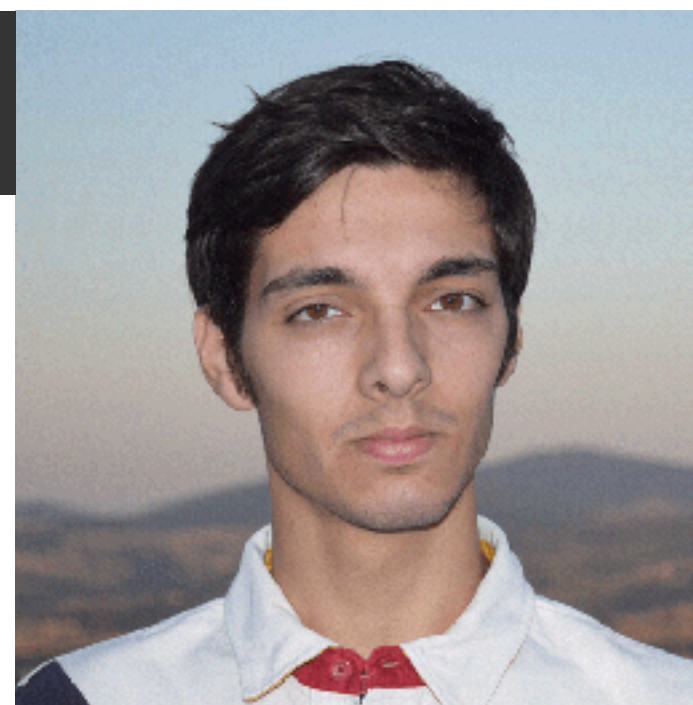
*Former student of Ecole Normale Supérieure of Paris-Saclay
Agrégation in physics*

Thomas Epalle

Co-founder, researcher

PhD in combustion

*Former student of Ecole Normale Supérieure of Paris-Saclay
Former student of Ecole CentraleSupélec*



Antonin Penon

Co-founder, CTO

Data-scientist

Former student of Ecole Normale Supérieure of Paris-Saclay



- Magic LEMP team is specialized in state-of-the-art artificial intelligence. It involves highly-qualified and versatile profiles (PhDs, engineers, ...) with complementary expertises.

Our last achievements

- Winner of the 2020 AI4Curie challenge

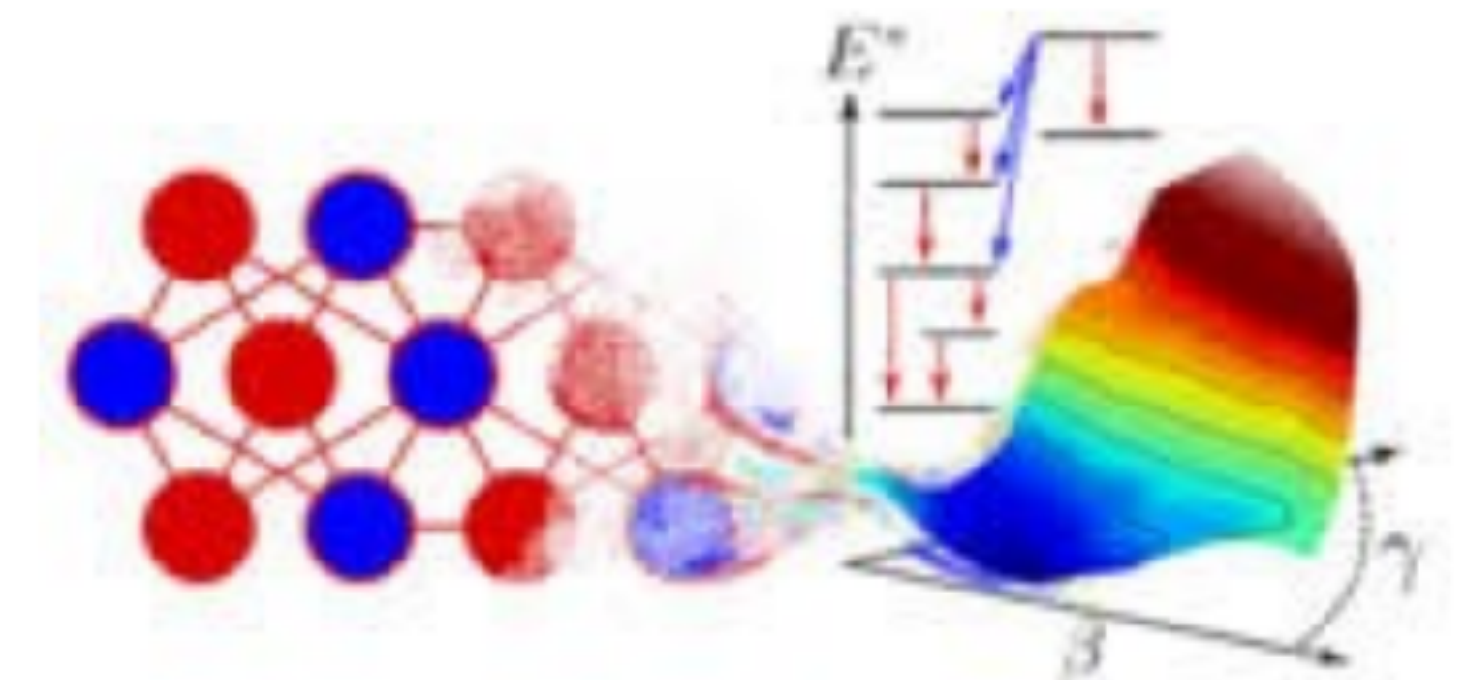
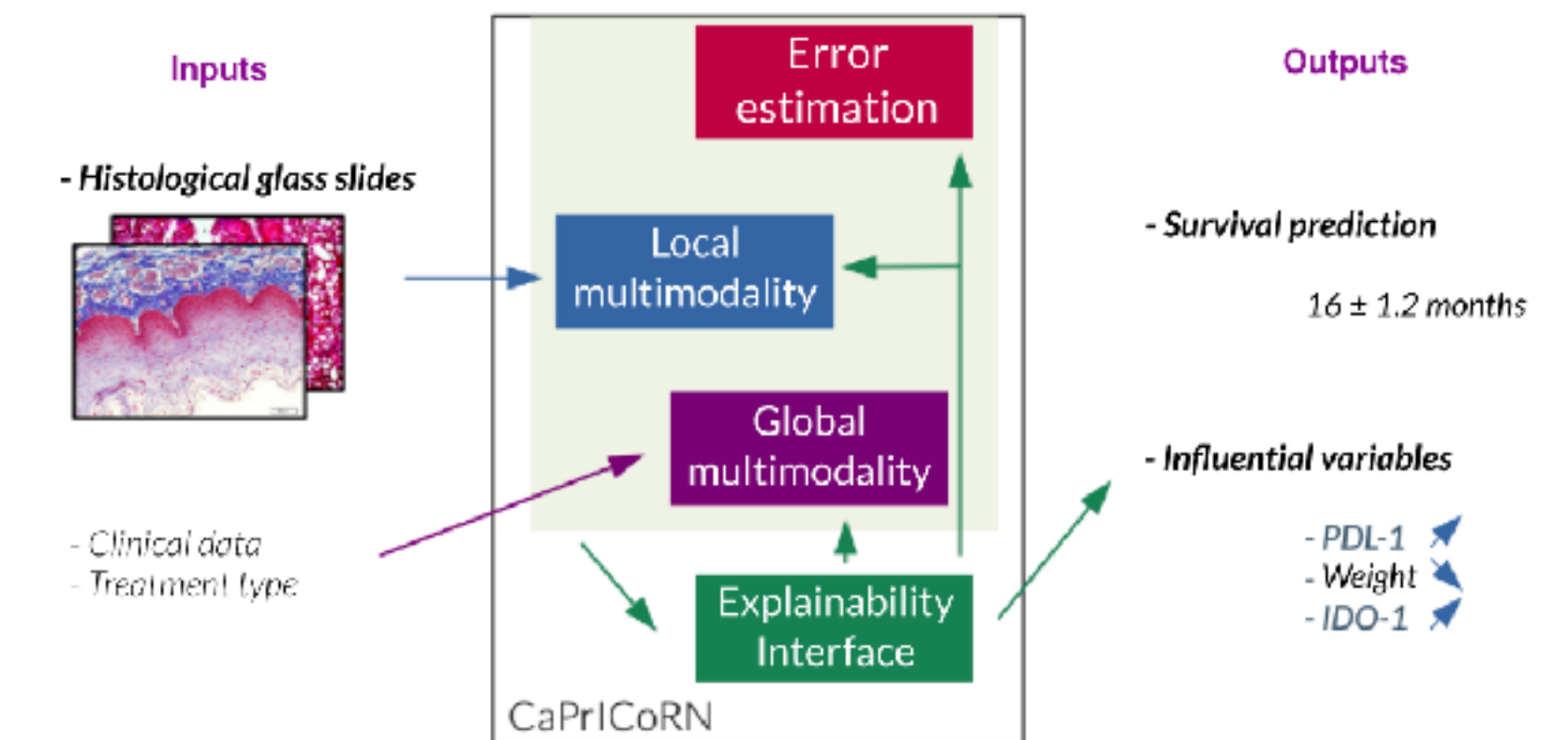
AI-based predictions of the impact of immunotherapy on patient's survival

- Winner of the 2021 AI for Health challenge

AI-based multimodal and explainable quantification of the impact of an immunotherapy treatment on patient's survival

- Publication in a peer-reviewed journal

Convergence acceleration of heavy nuclear physics calculations by a factor 1000



<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.124.162502>

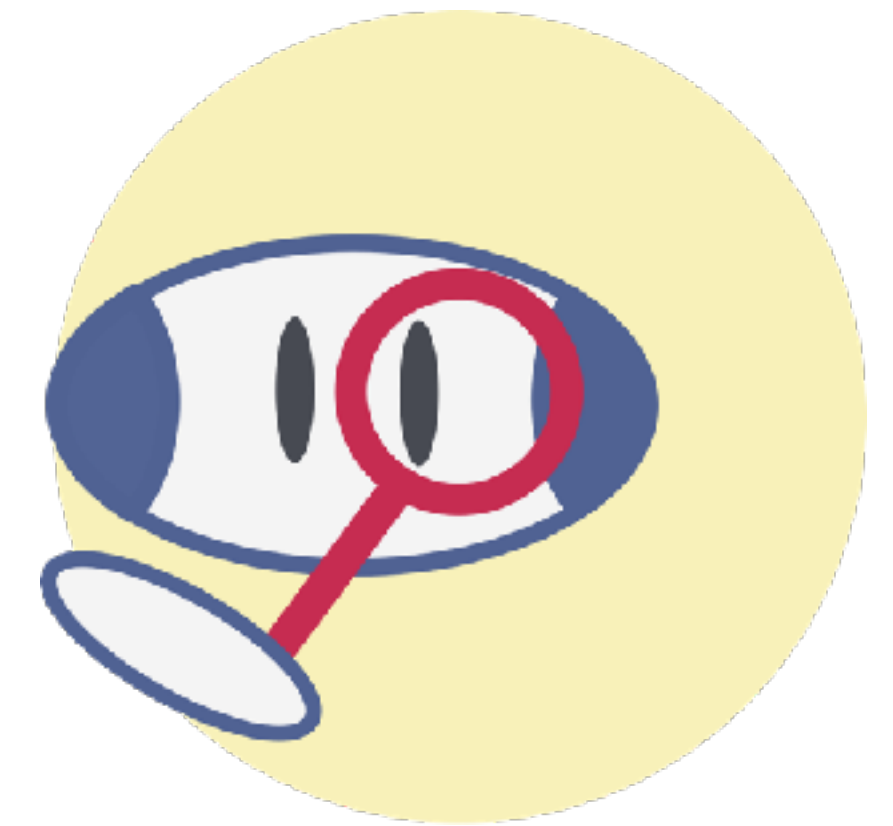
A tailored scientific and strategic service

Our core business is **explainable and trustworthy AI**. We offer a **complete and customized** service, from identifying your needs to integrating the technology we designed and developed for you into your workspace. Our service combines **strategy, R&D and skills training**.



A tailored scientific and strategic service

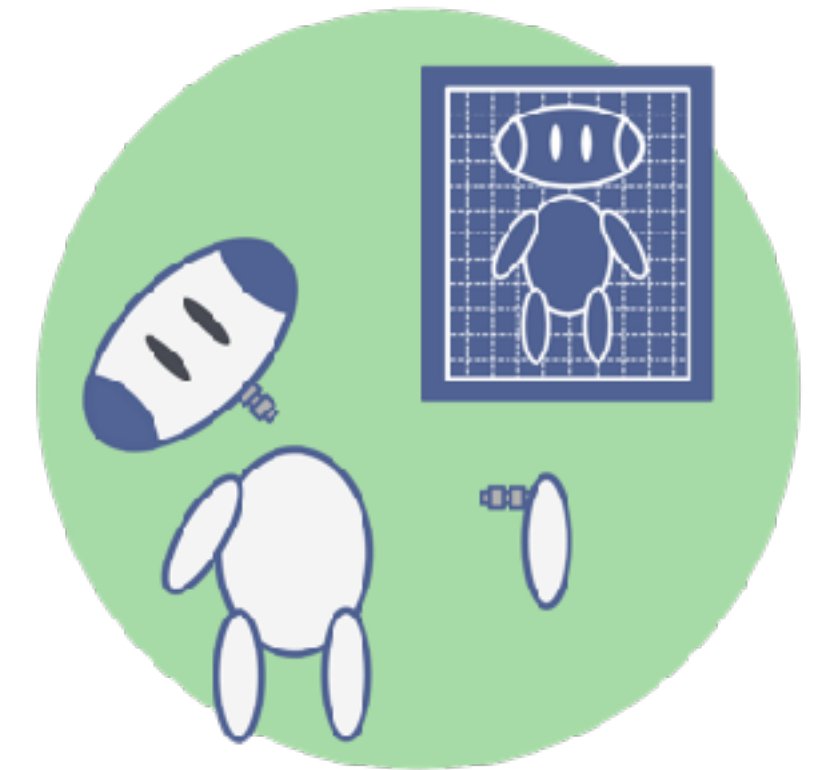
- During a first diagnosis phase, we get to know your firm and its **challenges**. We assess your resources (data, available skills).
- We identify your **untapped potentials**, and design with you a **tailored strategy** in order to boost your productivity.



DIAGNOSIS

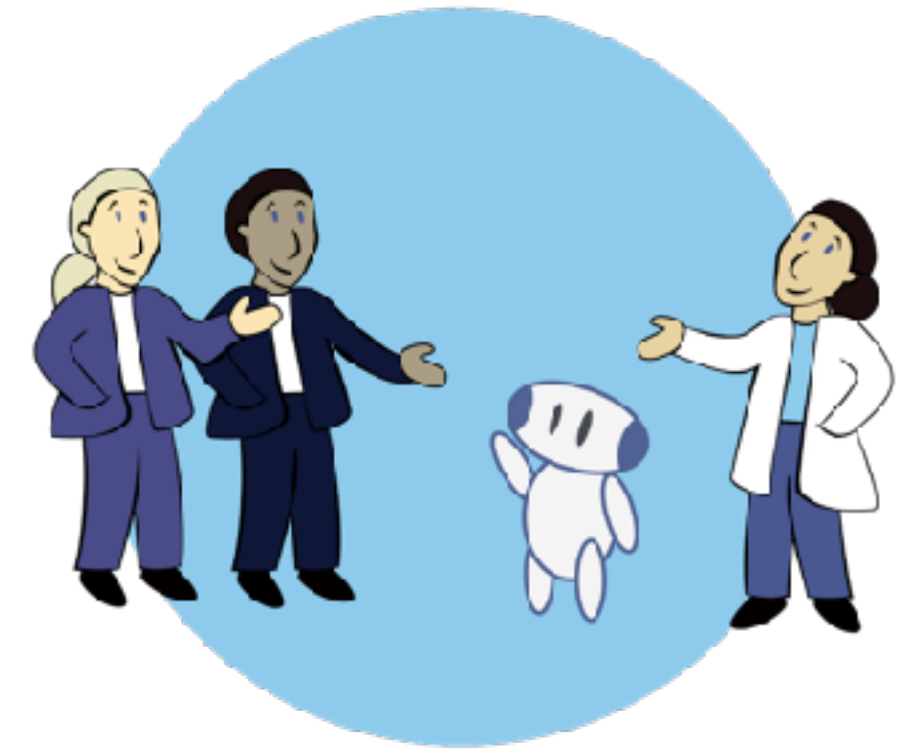
A tailored scientific and strategic service

- Then we study the feasibility of the project. It results in a **proof of concept**, scientifically sound and well-documented.
- At the end of this exploratory phase, we carry out the whole R&D process, always in touch with your teams, up to the delivery of a **functional technological solution**.



A tailored scientific and strategic service

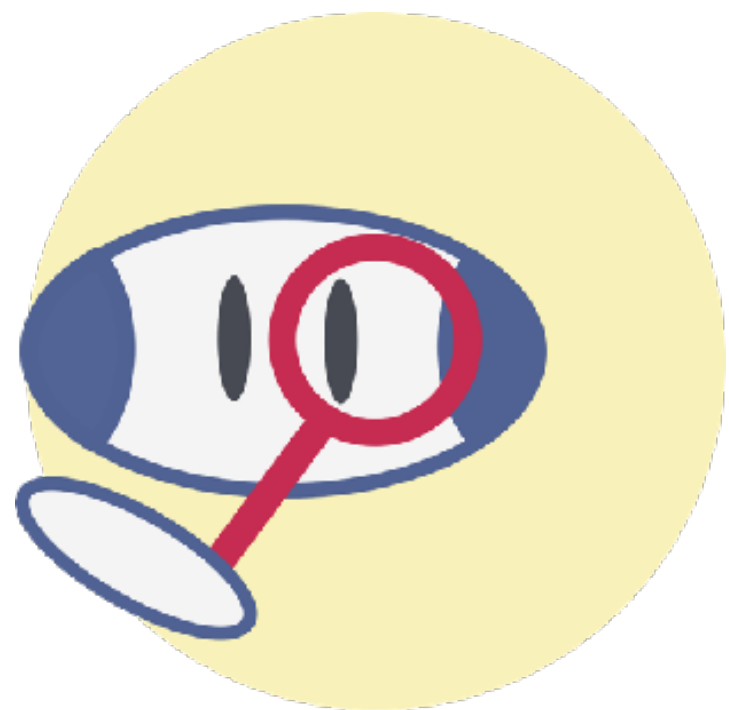
Finally, so as to ensure a **successful human and technical integration** of our technology into your workspace, we provide you with **deployment assistance** and **skills training** for your teams.



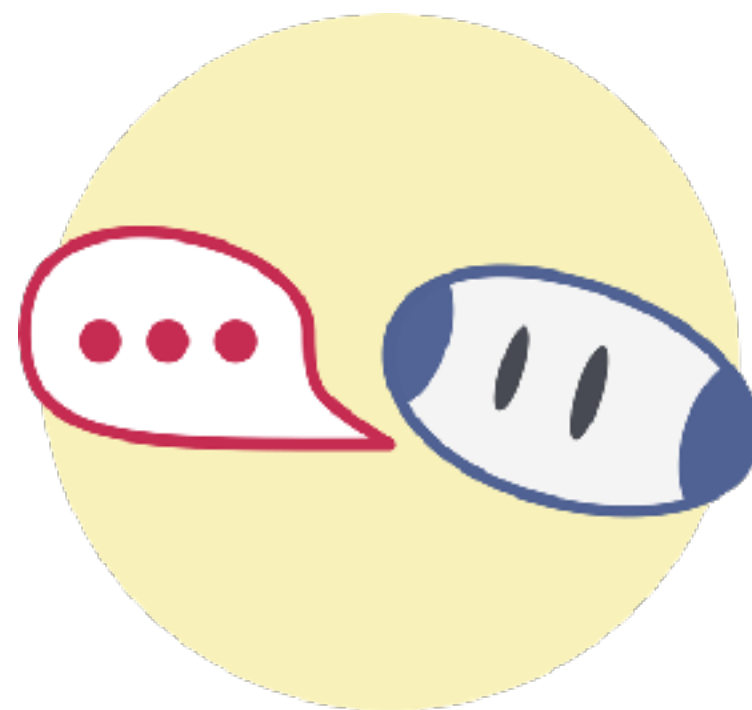
Our expertise : AI in all its forms

Our fields of expertise

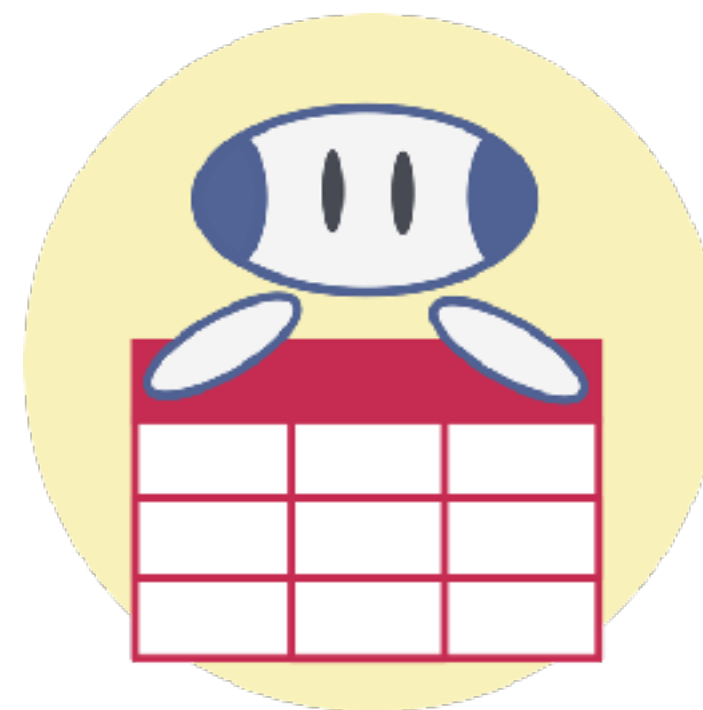
COMPUTER VISION



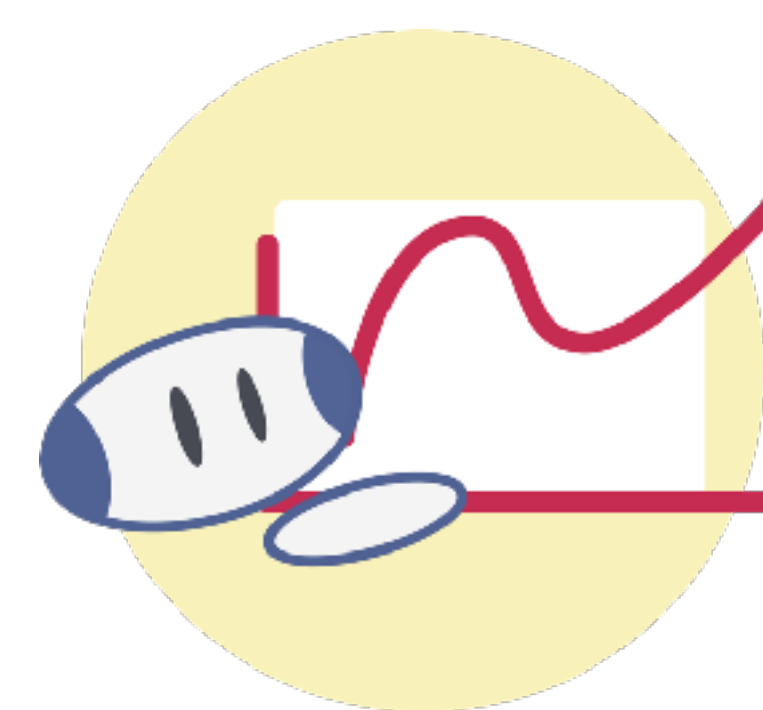
NATURAL LANGUAGE
PROCESSING



TABULAR DATA



TIME SERIES



REINFORCEMENT
LEARNING



*When it is possible, we design **explainable AI** (xAI) solutions. xAI provides predictions that a domain expert can more easily interpret. Explainability mitigates the “black box” effect often associated with AI, and is a key to build **trustworthy AI**.*

Trustworthy AI for key topics

Thanks to our expertise in trustworthy AI, we can tackle sensitive and crucial topics

Healthcare

- Pulmonary oncology (CaPrICoRN project with Institut Curie)
- Treatment by ultrasound

Civic tech

- Study on the propagation of fake news (PhD proposal)

Magic LEMP : a recognized expertise

Insertion in the French AI ecosystem



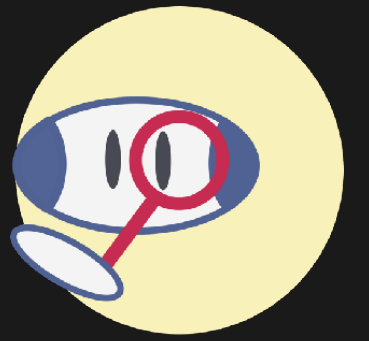
Quality labels



Awards in healthcare

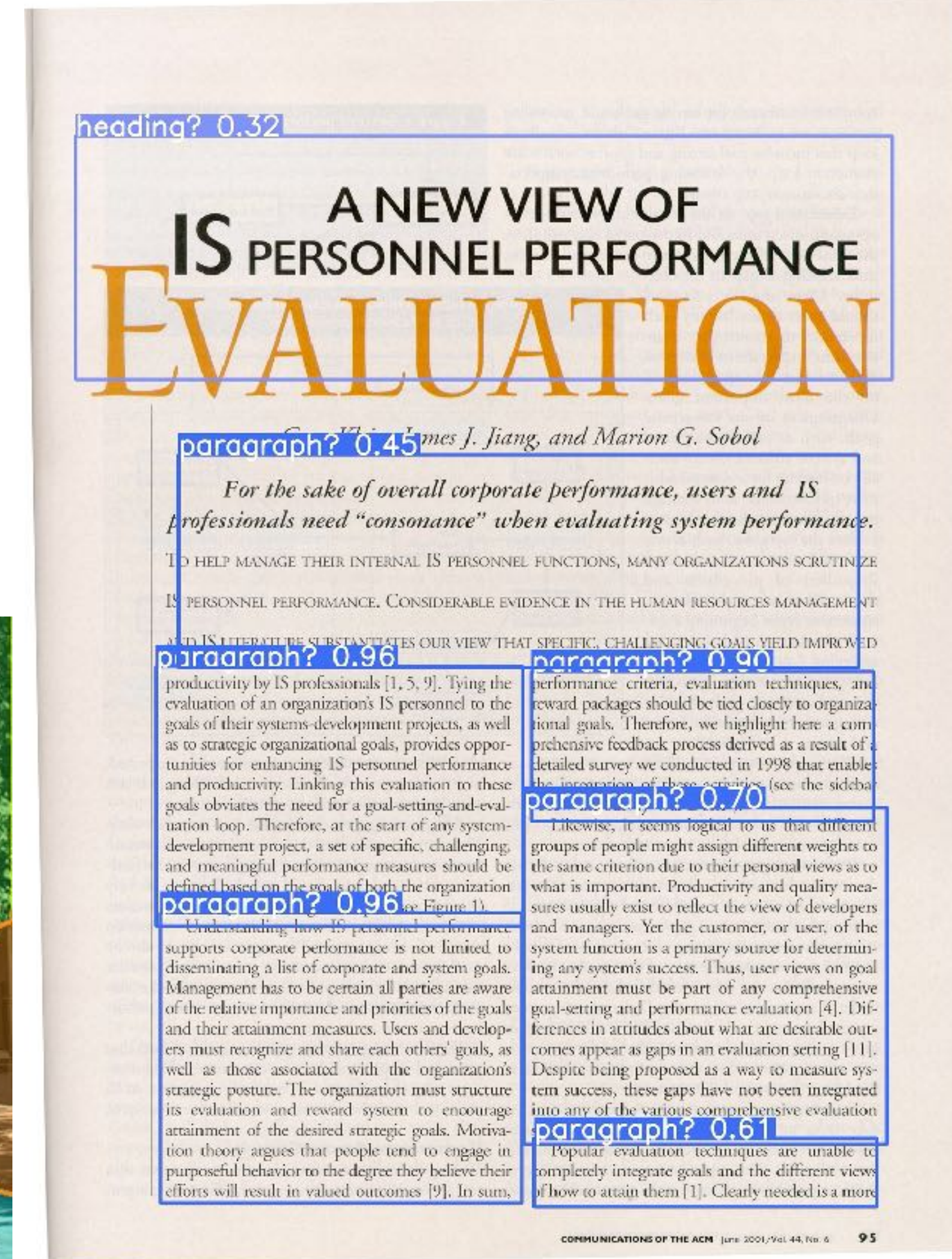
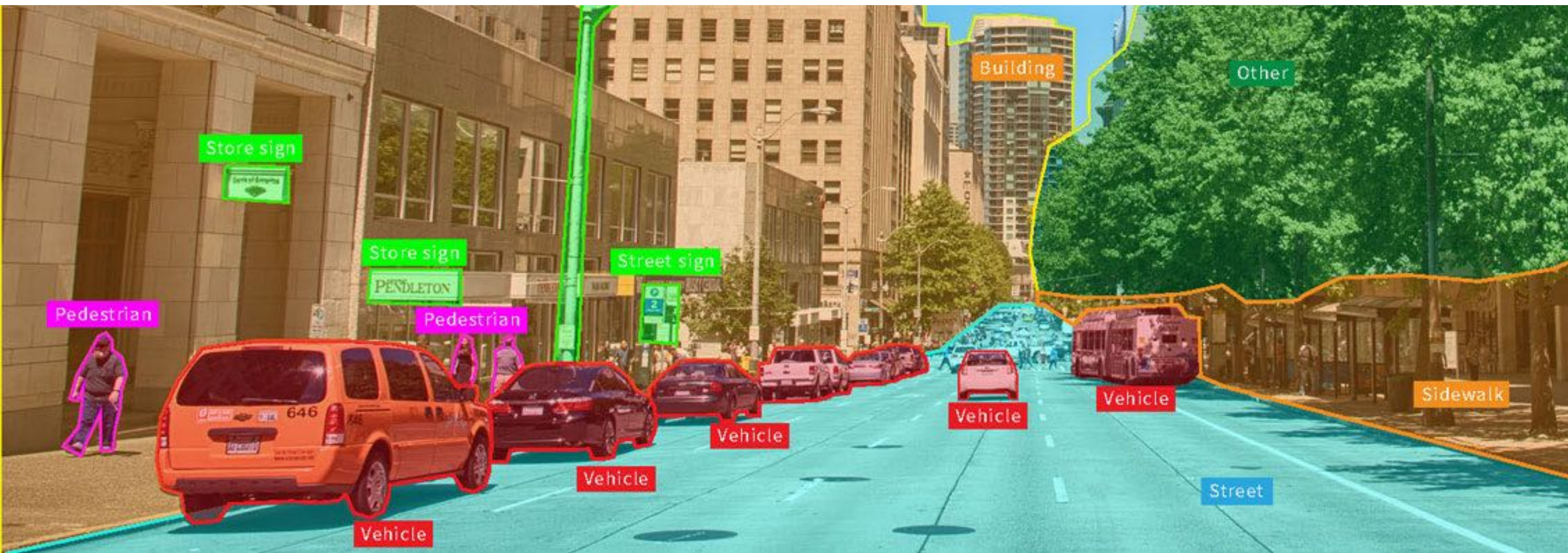
- Winner of the 2020 AI4Curie challenge organized by Institut Curie
- Winner of the 2021 for Health challenge organized by the Ile-de-France region and Institut Curie

Our expertise : AI in all its forms



Computer vision

- *Document digitalisation*
- *Anomalies / defaults detection*
supply chain, production supervision, diagnosis, ...
- *Behavior analysis on videos*
security, accident prevention, analysis of client reactions, ...

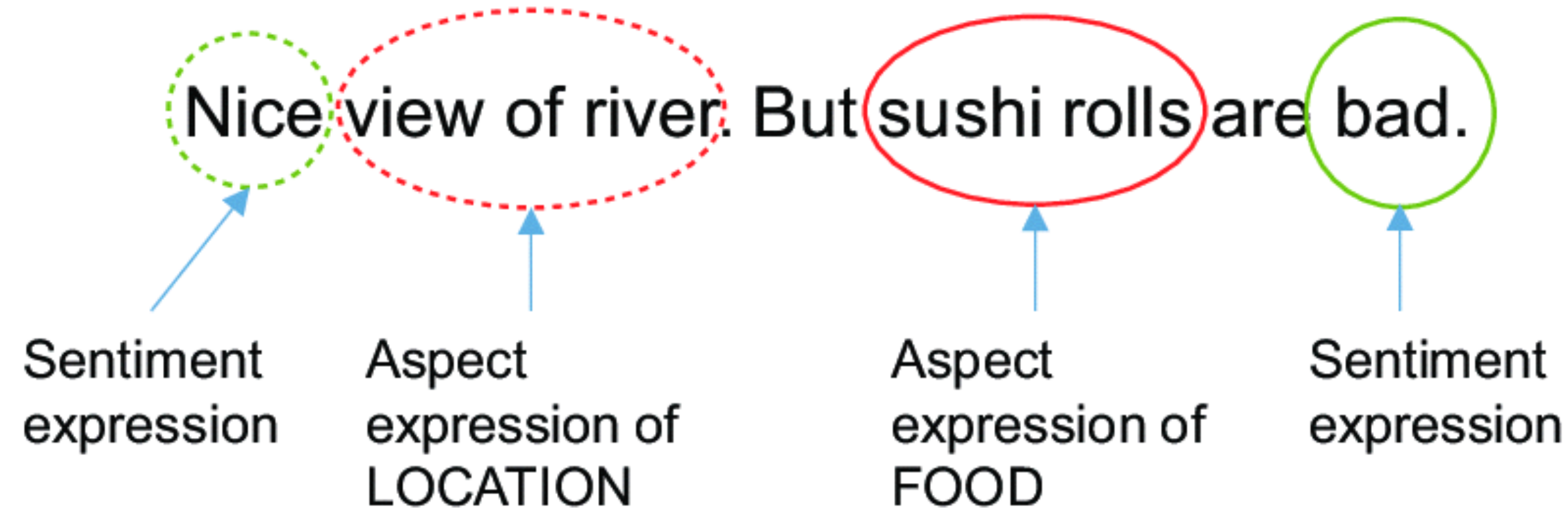


Our expertise : AI in all its forms



Natural language processing

- *Documents analysis*
automatic watch, patentability, fraud detection, automatic summary, ...
- *Conversational agent*
chatbot, analysis of client reactions, smart autocompletion, ...
- *Translation*
automatic subtitles generation, vocal synthesis, ...



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carry out Monte Carlo simulation using data from provinces other than Hubei. Generate 1,000 simulation data of future case growth and extract three scenarios of high (quantile = 0.95), medium (quantile = 0.5), and low (quantile = 0.05) infection from the simulation results while retaining the potential for changes in the number of cases in Hubei as the worst future scenarios (Extreme Scenario). Both a sigmoid function and polynomial regression are used to extend the simulation time for different assumed second scenarios. A sigmoid function is used to assume that the epidemic in China has almost reached its peak as a more conservative scenario; polynomial regression is used for the assumption that the epidemic in China will continue and shows no signs of easing (Table 1).

Table 1. The setting of simulation scenarios.

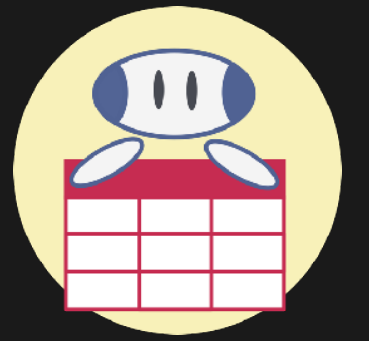
First Scenarios	Second Scenarios	
Extreme	1. Conservative	2. Severe
High (quantile = 0.95)	A1: Extreme-Conservative	A2: Extreme-Severe
Medium (quantile = 0.5)	C1: Medium-Conservative	C2: Medium-Severe
Low (quantile = 0.05)	D1: Low-Conservative	D2: Low-Severe

Annotate table

Table

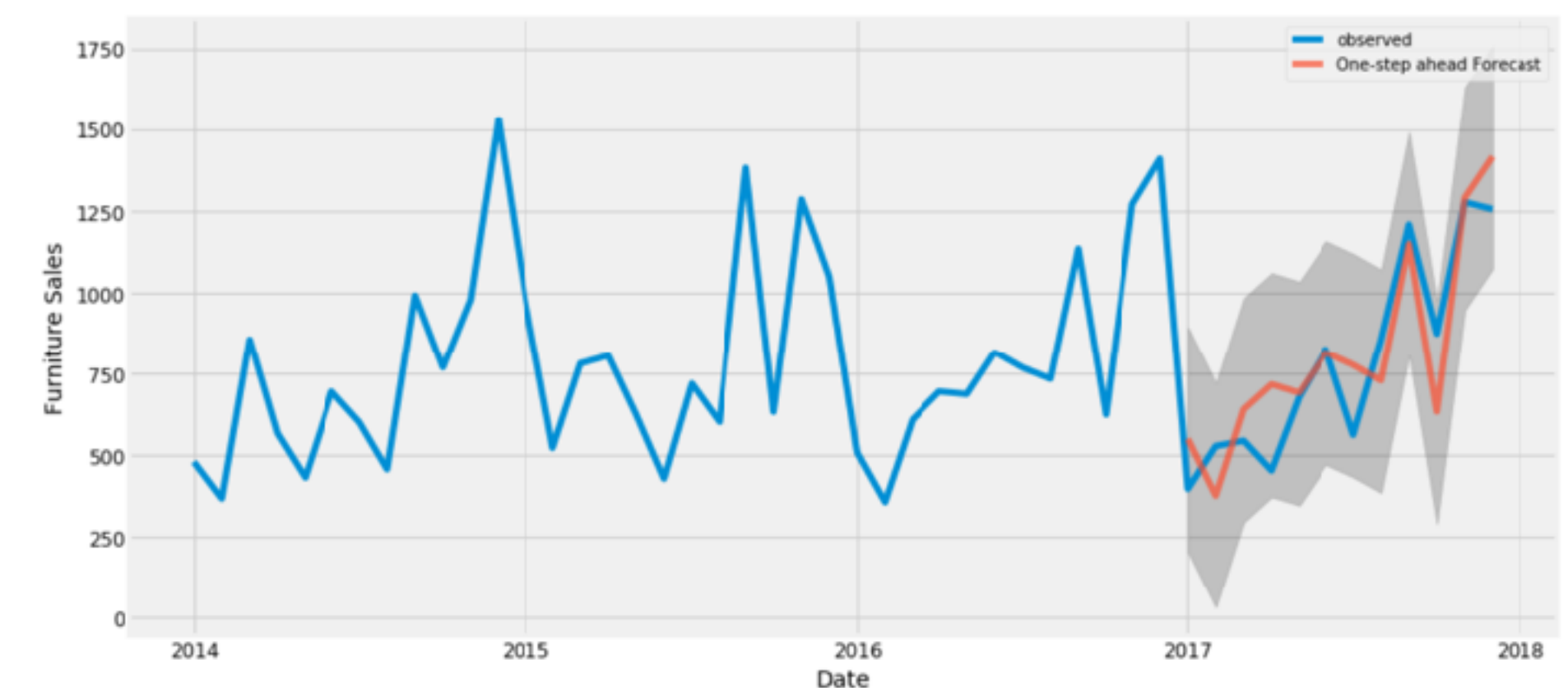
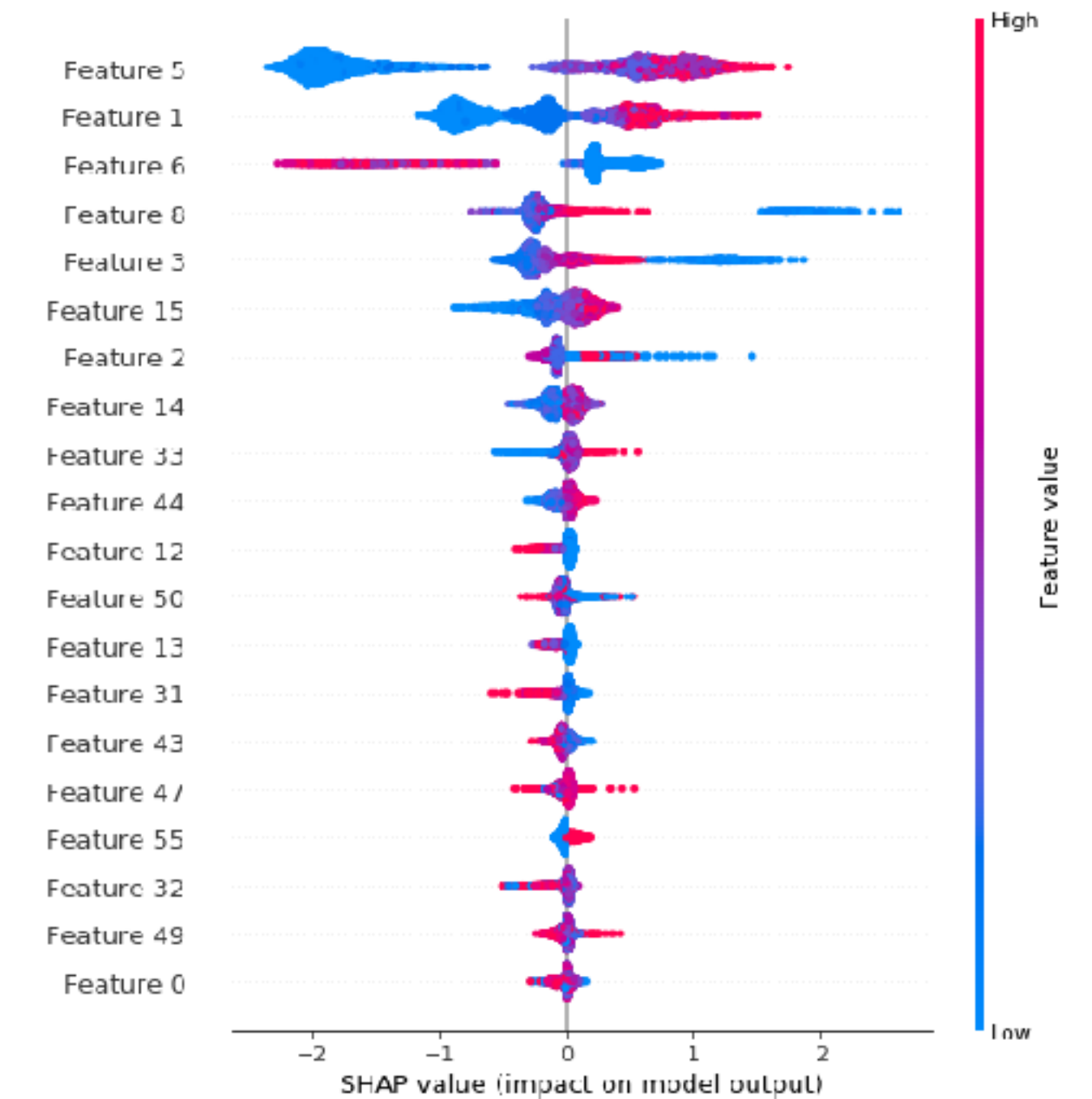
Monte Carlo simulation is a very suitable risk-assessment method; it can perform simulation based on limited data and different scenarios to understand the possible risks since computers can easily simulate a huge number of experimental trials that have random outcomes and uncertainty (Papadopoulos & Yeung, 2001). The elements of the Monte Carlo simulation method including the expectation $E_{\pi}(U(X))$, which is with respect to the probability density π , the response function $U(x)$, and random draws $X = x(t)$ from the target distribution π (Jørgensen, 2000).

Our expertise : AI in all its forms

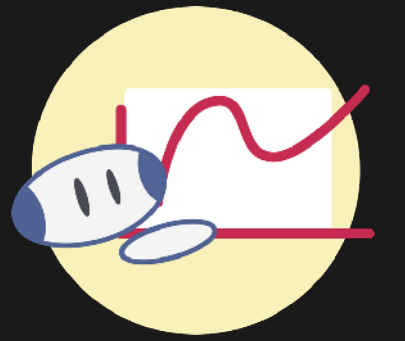


Tabular data

- *Data mining*
market segmentation, anomaly detection, ...
- *Prediction*
trends analysis, reconstruction of consumption trajectories, risk analysis, ...
- *Explanation*
identification of significant factors, operational research, ...



Our expertise : AI in all its forms



Time series

- *Motion, speech control*
customization, ergonomics, ...
- *Real-time alert*
safety, supply chain, healthcare, ...
- *Digital twin*
predictive maintenance, automatic pilot, simulator, ...



Tailored AI

There are no boundaries between our expertises, they can be combined without limit.

A crazy project in mind? Let us talk about it, we love challenges!



Tailored AI

- Our offer in a nutshell

BOOST YOUR PRODUCTIVITY THANKS TO STATE-OF-THE-ART AI WITH OUR COMPREHENSIVE SERVICE COMBINING STRATEGY / R&D / SKILLS TRAINING.

- Our pricing policy

We adapt our pricing policy to your ambitions, to the complexity of the task and to your financial status.

OUR OFFERS

DIAGNOSIS



DIAGNOSTICIA

CONSULTING



HIMALAIA

SKILLS TRAINING



BONZAI

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See you very soon

<https://magic-lemp.com>

SIRET : 84439862800025 MAGIC LEMP SAS with share capital of 1000 €

Training organization registered under the number 11910881491

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