



Confused by AI?

Improve AI reliability

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Numalis gives you the keys to add AI to your company

AI is growing everywhere but trust in these technologies is hard to build.

Trial and error is not an option to validate an AI in any industry where reliability is your core promise. Stronger validation techniques now exist.

Numalis brings tools to your business that can make the difference between a maybe-suitable AI versus a truly trustworthy one.

You do not have to trust AI blindly, even black-boxes can now have specifications.

1 IMPROVE AI RELIABILITY



Our solutions exist to **rigorously prove** that your AI will be as **reliable** as you need it to be.

2 DESIGN, TRAIN AND VALIDATE YOUR AI



Numalis' tools can guide your teams all along **the process of designing, training and validating** your AI.

3 ISO STANDARDS: ROBUSTNESS AND EXPLAINABILITY



With them you will be ready for the **upcoming ISO standards** by improving continuously the **robustness** of your AI while making **explainable your AI' decisions**.



Numalis gives you the keys to build trust in your AI systems

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To have good performance, a neural network needs a good training set. But to distinguish if the performance is flawed because of the dataset or because of the training is hard.

With Saimple your engineers go beyond the usual metrics used to measure performance, they can:

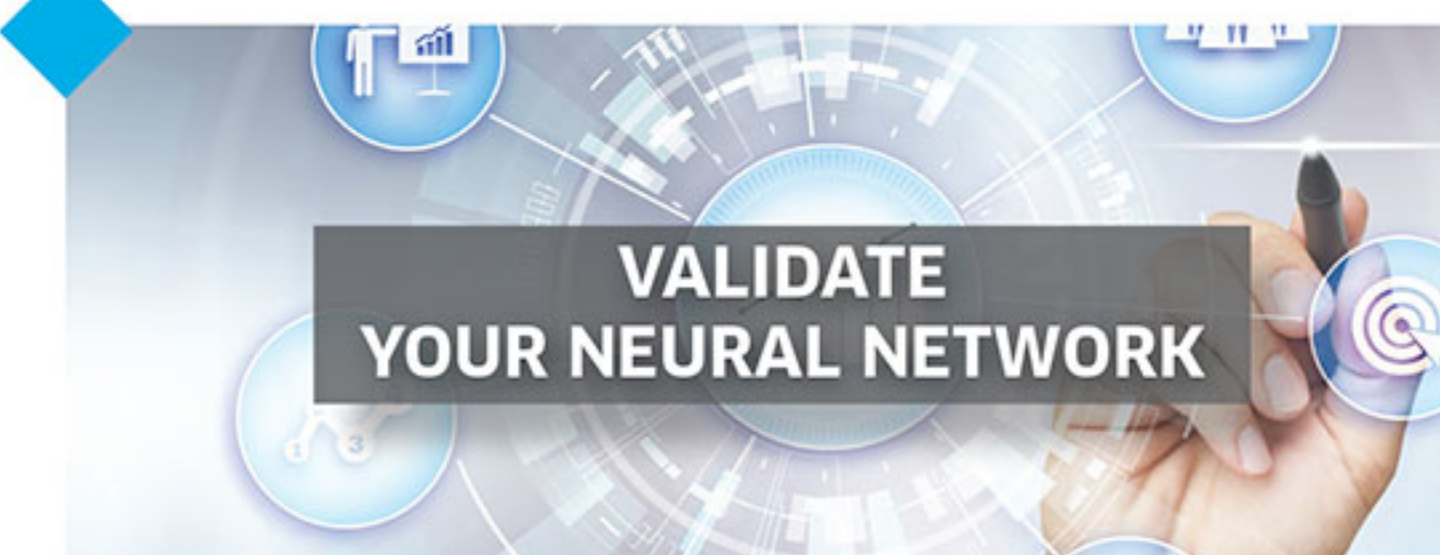
- Know how and why the training causes confusion for the network
- Visualize what features the network has actually learned to explain its behavior
- Improve the training set to improve the network robustness and remove bias



Finding the correct neural network design is often done empirically, by reusing existing design or even by constructing randomly a new one.

Justifying a modification into any design is impractical. Until Saimple gives your engineers unique insights of the impact of each layer chosen. It analyzes each one and demonstrates its impact in terms of robustness and explicability.

Because knowing the impact of any change is the first step toward making the correct one.



Validation is an essential step to build trust in systems using AI. When integrating a neural network into your product you need to know if its quality is proven. Unfortunately code quality techniques are of no real use when applied onto an AI. New metrics, new protocols are necessary to ensure the reliability of what you include. Saimple helps you document how far your AI can be proven reliable and how you can justify both its design and behavior.

Additionally you can measure the impact the hardware will have on your AI performance before it is integrated, avoiding costly retrofit down the road.



No validation would be complete unless your client and yourself have a common reference document to discuss. In order to bring clarity to how AI validation can be done, Numalis is working at the ISO level to define the very first standard on neural networks.

Series of the 24029 ISO projects led by Numalis describe best practices to adopt and a shared framework to build trust into your AI.



- Supports Keras/TensorFlow through ONNX
- Supports convolutional, residual and recurrent models
- Fully automated and scriptable tool
- Dynamic graphical interface available
- Automatic audit documentation generation
- Noise available to test robustness (homogeneous, gaussian blur, weather conditions etc.)
- Multi-OS client
- Stand alone solution on premise or SaaS (Linux)

More details at www.numalis.com

NUMALIS, THE NO-GUESS COMPANY



ADDING AI TO YOUR BUSINESS

AI is offering new opportunities and challenges for every industry willing to achieve these. But you must take actions to mitigate their risks.

As a result your engineers need new processes and new skills to ensure that your product will be both competitive and reliable.

BOOST PRODUCTIVITY & RELIABILITY

Whether AI is new for your company or not, your engineers need automated tools to design and validate their work.

Numalis tools will accelerate AI adoption, establish good practices while improving your risk mitigation strategy.

ANTICIPATE STANDARDIZATION

To validate AI new methodologies are required. Numalis provides cutting edge technology that currently serves as a basis for ongoing ISO standards.

Adapting your process today gives you the edge toward your competition regarding the standards and regulations that emerge.

*For a personalized analysis
of your project: contact@numalis.com*

www.numalis.com

