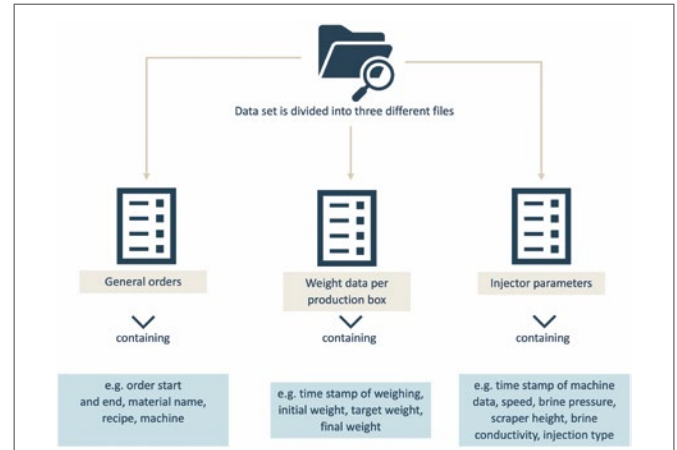
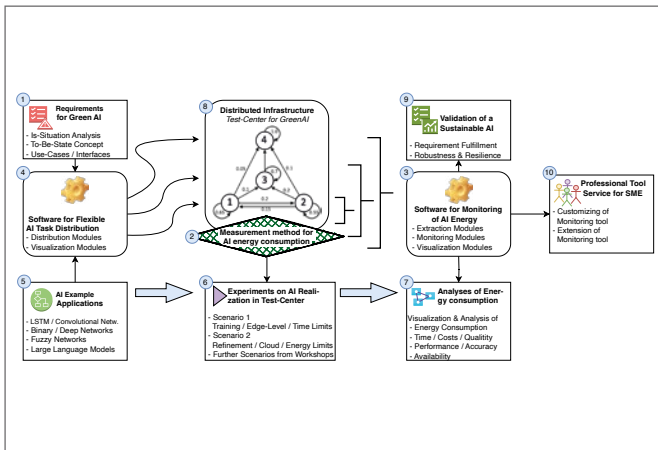


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Aiming to Create Green AI: Putting a focus on AI energy efficiency and minimizing the CO₂ footprint of AI-based systems

Reducing CO₂ emissions is one of the most urgent tasks of our time. Simultaneously, artificial intelligence is developing rapidly. However, AI often brings about its own significant CO₂ impact. Experimental testing of Green AI strategies is therefore crucial for their long-term success. A management tool can support this process so that both users and managers can make optimal use of AI as a tool.

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Parameter Optimization for a Brine Injector: Development of an AI pipeline using an example from the meat industry

The production of cooked ham involves a number of challenges. In production, cuts of meat are put through in a multi-stage curing and cooking process involving brine. This can lead to fluctuations in quality due to structural defects in the meat. The result: the brine is not optimally absorbed. An AI model trained on historical data intends to solve the problem.

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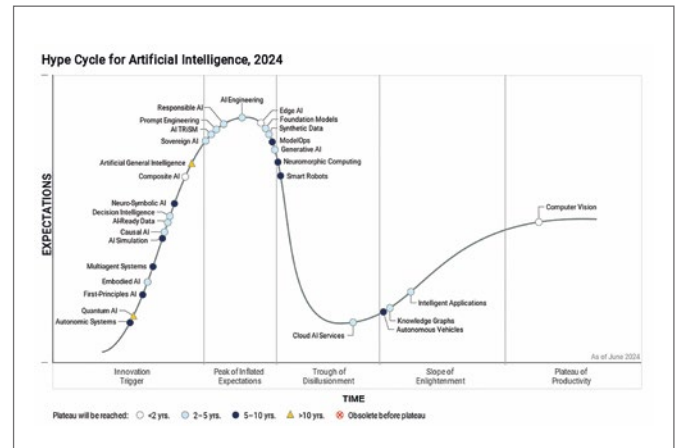
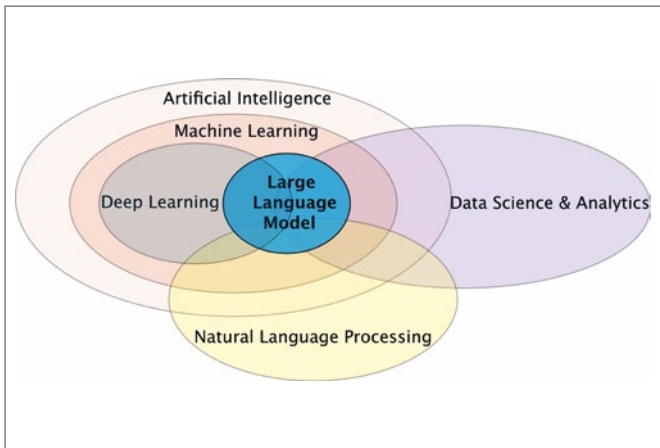
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Large Language Models in Production: An analysis of the potential for transforming production processes in modern factories

The rapid development of generative artificial intelligence is opening up new avenues for the manufacturing industry amid a shortage of skilled workers. Large language models can potentially make production processes in medium-sized businesses more efficient. But how exactly is this potential measured? Key areas of application show why a lot depends on employee acceptance.

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Can Artificial Intelligence Act as an Enabler for Industry 4.0? Impacts on the maturity level of Industry 4.0 technologies

Artificial intelligence is often mentioned in the same breath as Industry 4.0, but the exact role of AI is unclear. Is AI just another 4IR technology or an essential "enabler" for other 4IR technologies? Six experts assess the impact of AI on 41 Industry 4.0 technologies. Artificial intelligence could indeed be a decisive factor in unleashing the full potential of the Fourth Industrial Revolution.

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