



MAKE IT
PRODUCT R&D

IA

Visão para a Indústria e para o Produto

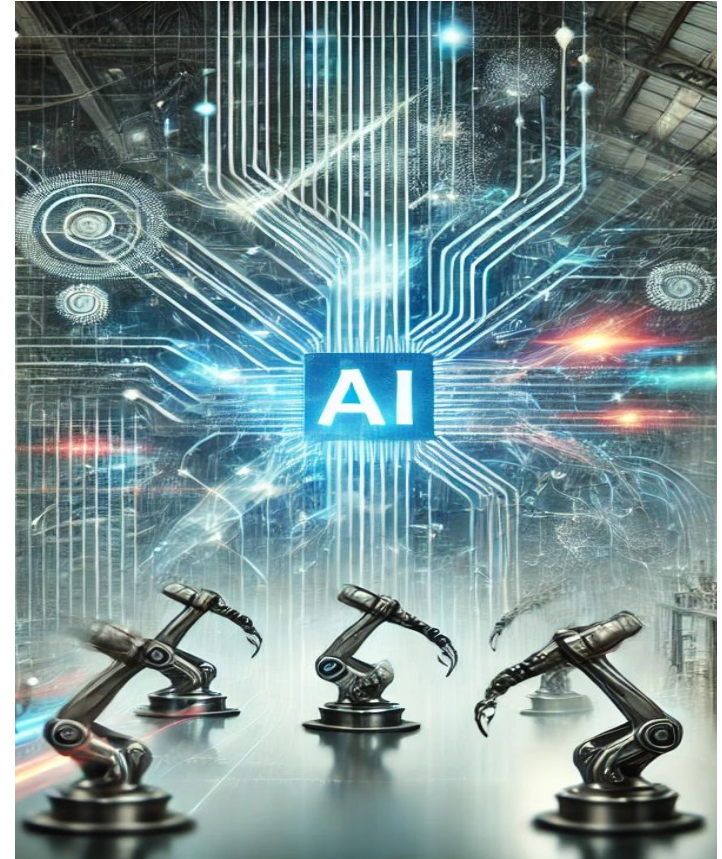
Francisco Mendes
ceo MAKE IT Product R&D



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Agenda

1. O que é IA?
2. IA Integrada em Produtos
3. Casos na Indústria
4. Conclusão



O que é IA?

Software capaz de **aprender** e **tomar decisões automáticas**, a partir da análise de **grandes volumes de dados**.



Tipos de modelos

ML - Machine Learning

LLM - Large Language Models

DL - Deep Learning

NLP - Natural Language Processing

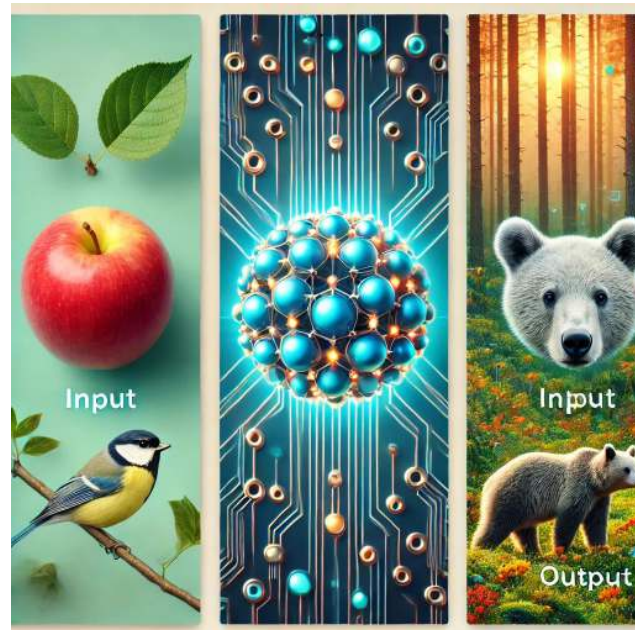




Machine Learning (ML)

Treina sistemas para:

aprender com dados,
identificar padrões, e
tomar decisões automáticas.



Large Language Models (LLM)

Exemplo: chatGPT

Modelos treinados em grandes volumes de texto para gerar respostas human-like.



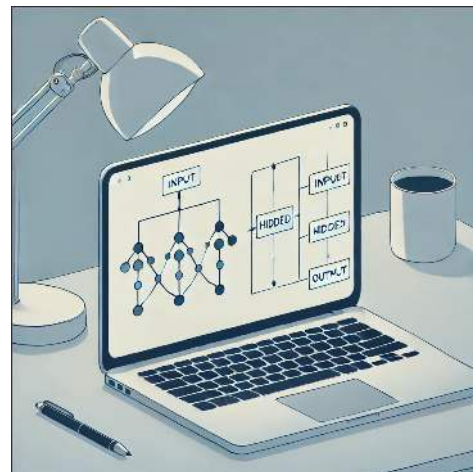


Modelos de IA: LLM vs ML

LLM



ML





Large Language Models (LLM)

ChatGPT-3 vs. ChatGPT-4: Training Power Consumption and Costs in U.S. Dollars

Model	 GPT-3	 GPT-4
Days of training	34	100
Training energy consumption	1,287,000 kWh	62,318,800 kWh
Cost of training*	\$168,597	\$8,163,763

Data sources: U.S. Energy Information Administration, Electric Power Research Institute (EPRI)

*Calculated based on the average U.S. commercial electricity rate of \$0.131 per kWh
as of June 2024



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Importância das LLMs

**Assistentes Virtuais
especializados**

Disponíveis 24/7



Casos na Indústria

Detectar um sensor de temperatura avariado.

Acabar com notificações automáticas erradas

Aplicar as “fitbit” para equipamentos caros

Substituir inspeções humanas programadas
por vigilantes digitais 24/7

IA Integrada em Produtos

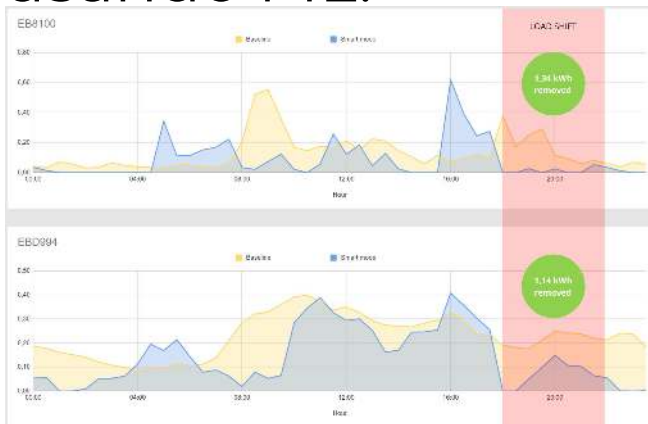
Smartex AI - Inspeção têxtil (B2B)

Startup portuguesa que inova na indústria com IA.



Klugit - Produto IoT para poupança energética (B2C)

Poupança energética no aquecimento de água usando ML.





Freshpod

Hidroponia automatizada





21.8° Temperature
Cabine



57%
Humidity



58%
Air Flow



Luminosity



110
nits



SYSTEM 1



115
nits



SYSTEM 2



Watering



Freshpod AI

feel free to ask!

You

is B9 on par with the other basil experiments?

Freshpod AI

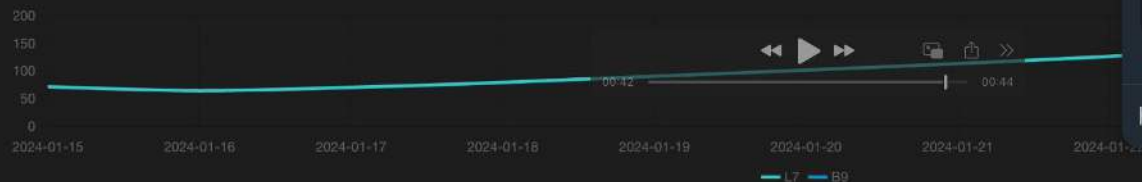
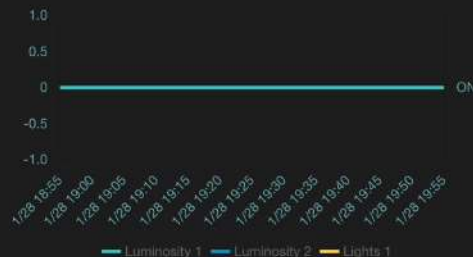
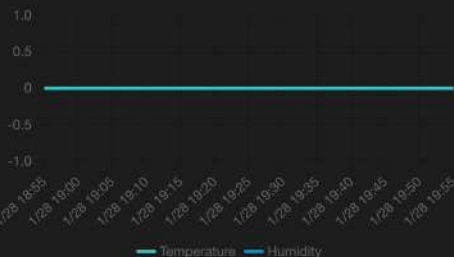
Based on the information available, Experiment B9, involving the Genovese variety of basil, seems to be progressing well. The seeds were planted on December 19, 2023, and transplanted on January 25, 2024. The Experiment is still ongoing, and as of Day 37, the basil has reached a height of 18 units, a width of 15 units, and has 4 leaves. The germination percentage for the seeds was 33%. The growth statistics and observations for B9 are consistent with the progress of other basil experiments, and the experiment appears to be on par with the others in terms of growth and development.

If you need further analysis or comparison with other basil experiments, feel free to ask!

What would you like to know?



Last Hour Today Last 7 Days Last 30 Days Last 60 Days





IA

**IA já não é o futuro,
mas o presente**

Francisco Mendes

www.make-it.tech