

Einführung in die Funktionsweise von Large Language Models (LLMs) und ChatGPT (3/4)

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<https://kalz.cc>

ELMEB 

<https://elmeb.org>

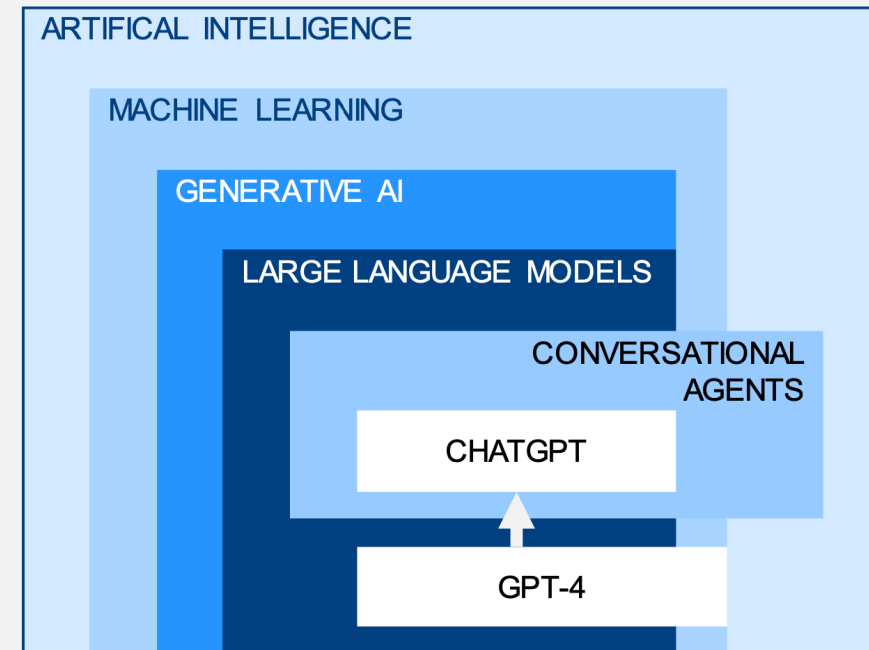
History of NLP

TheAiEdge.io

Natural Language Processing

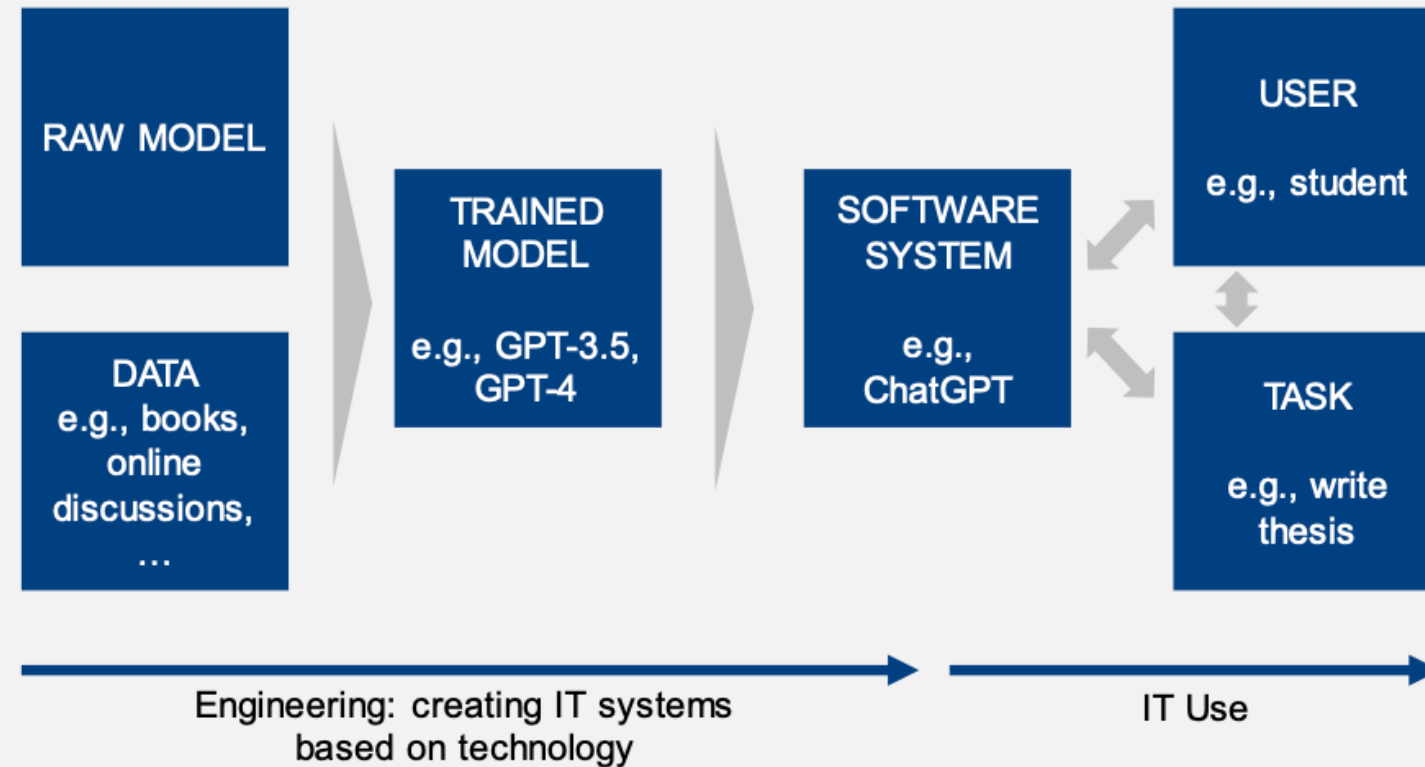


Key concepts related to Generative AI



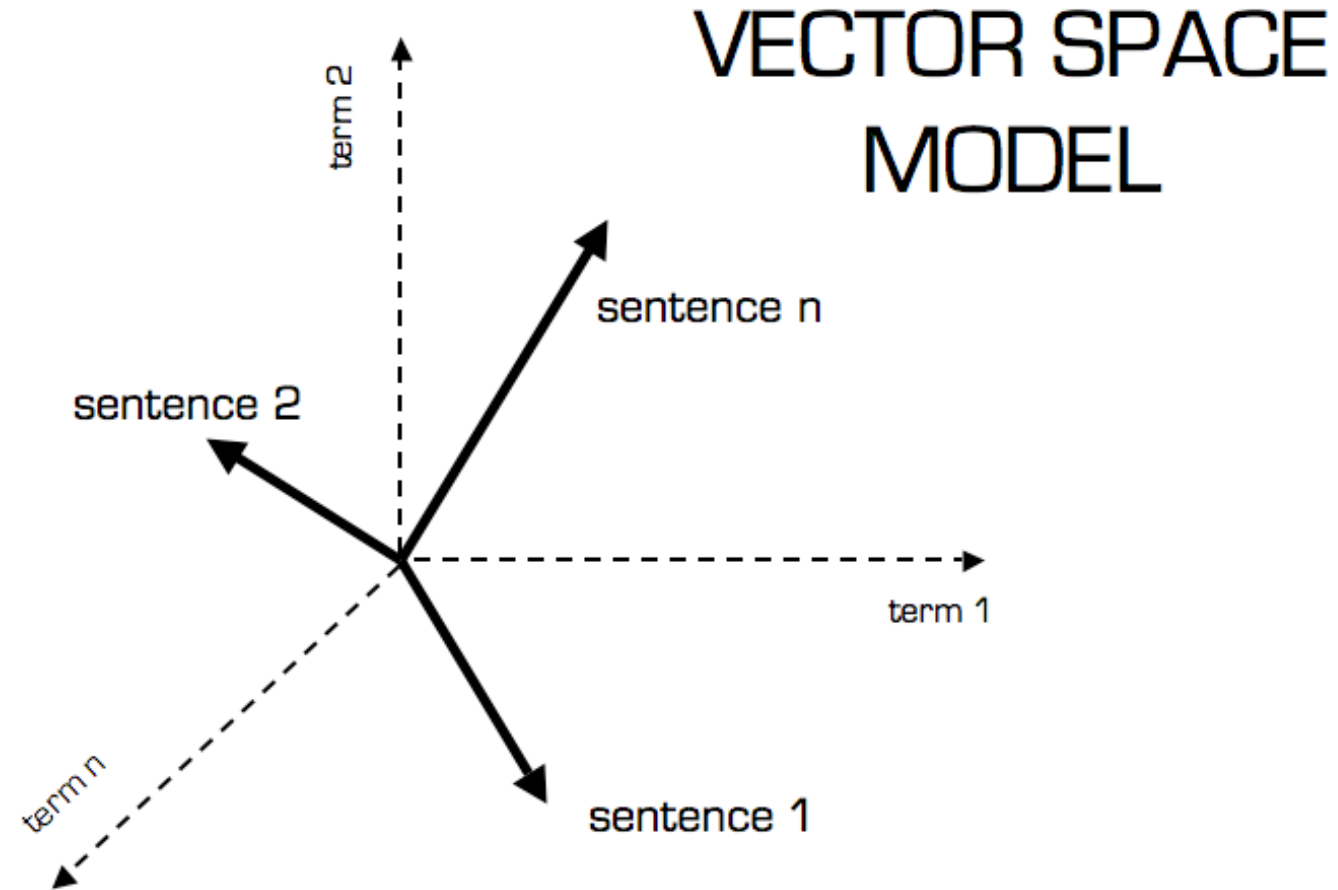
Gimpel, H., Hall, K., Decker, S., Eymann, T., Lämmermann, L., Mädche, A., Röglinger, R., Ruiner, C., Schoch, M., Schoop, M., Urbach, N., Vandirk, S. (2023). Unlocking the Power of Generative AI Models and Systems such as GPT-4 and ChatGPT for Higher Education: A Guide for Students and Lecturers. University of Hohenheim.

From technology over IT systems to IT use



Gimpel, H., Hall, K., Decker, S., Eymann, T., Lämmermann, L., Mädche, A., Röglinger, R., Ruiner, C., Schoch, M., Schoop, M., Urbach, N., Vandirk, S. (2023). Unlocking the Power of Generative AI Models and Systems such as GPT-4 and ChatGPT for Higher Education: A Guide for Students and Lecturers. University of Hohenheim.

Vektorraum-Modell

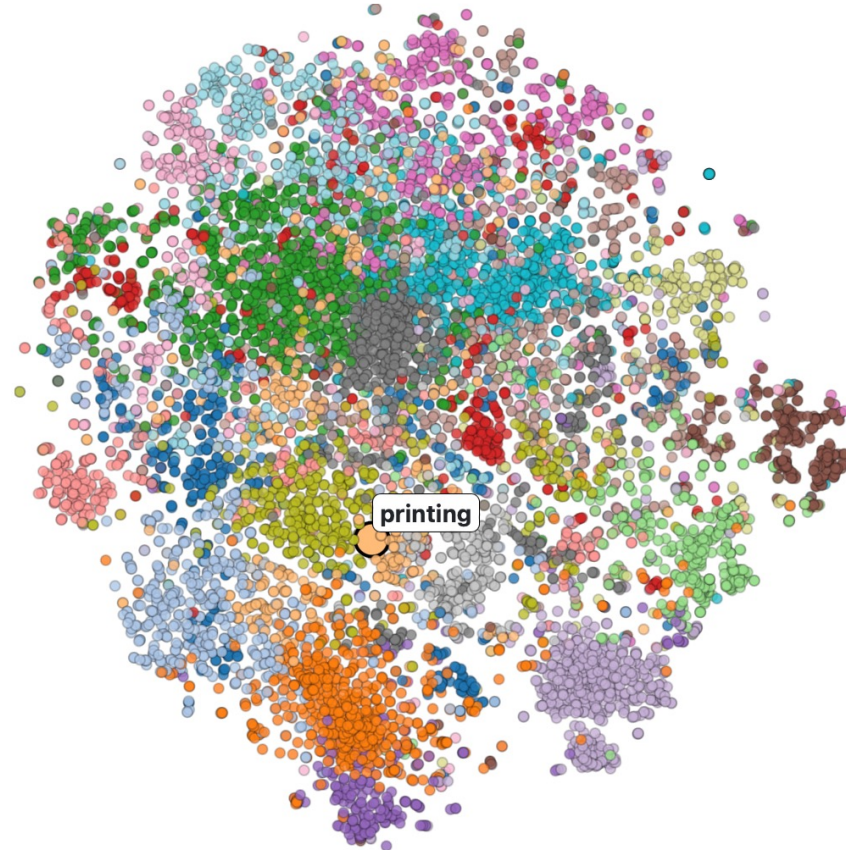


ALI MIRAMIRKHANI , 2023

Sprach Embeddings

Embedding Explorer

printing
columns
editorials
bingo
aerospace
subaru
lou
css
cir
sku
logitech
phentermine



Slide Dimension 1



Clicked Point

Clusters

Embedding Dimensions

Edwin Chen, 2023

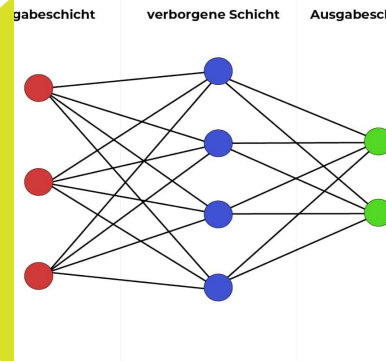
Large Language Model (LLM)



WÖRTER IN ZAHLEN



AUFMERKSAMKEIT



**NEURONALES
NETZWERK**



FINE TUNING

answer the #Topic following the conditions:
C: dynamic asset allocation based on market
length : around 30000 words
format: markdown
Include subtitles and detail descriptions
audience: 20 year old students
Content Goal : Blog
Writing style : Professional

PROMPTING

Wahrscheinlichkeiten/Probabilitäten

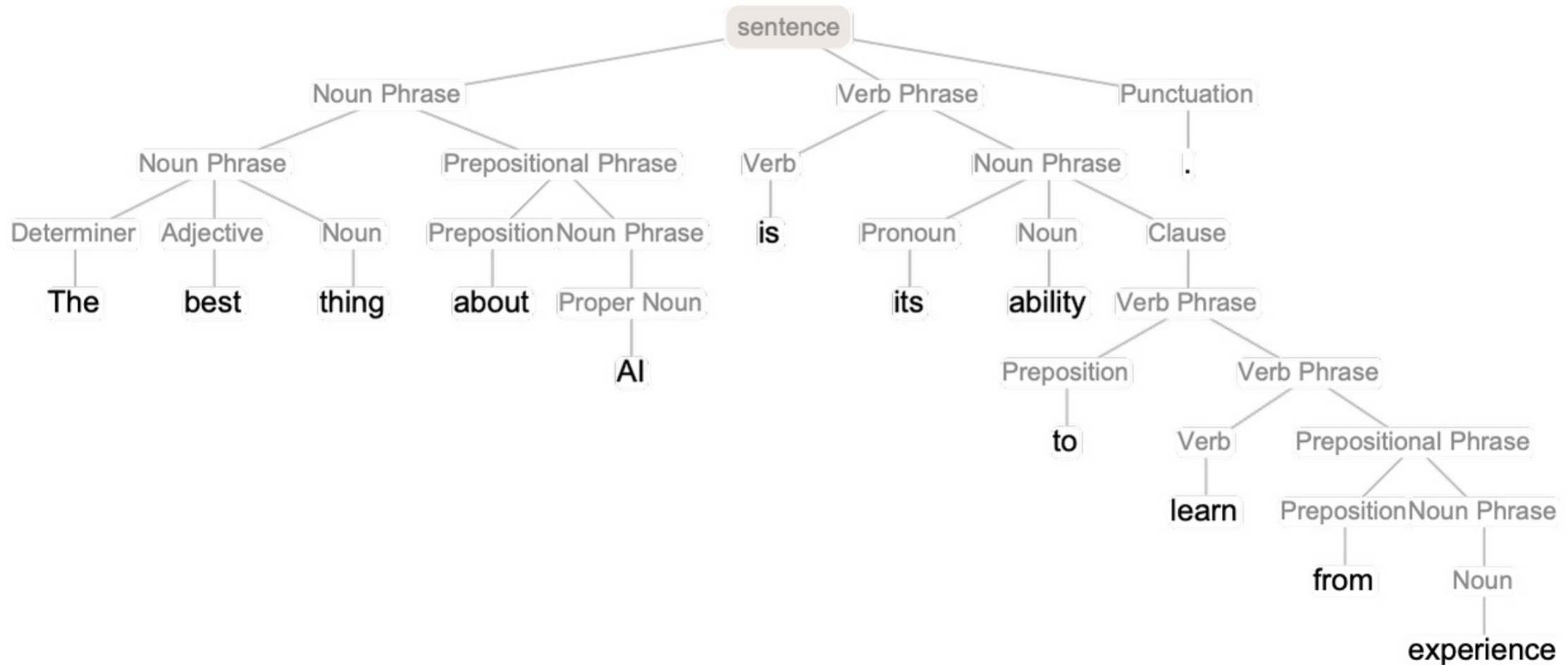
Andauernde Frage: Angesichts des vorhandenen Texts,
was wäre die sinnvollste Ergänzung?

Das beste an KI ist die Fähigkeit, zu

lernen	4,5 %
vorherzusagen	3,5 %
machen	3,2 %
verstehen	3,1 %
tun	2,9 %

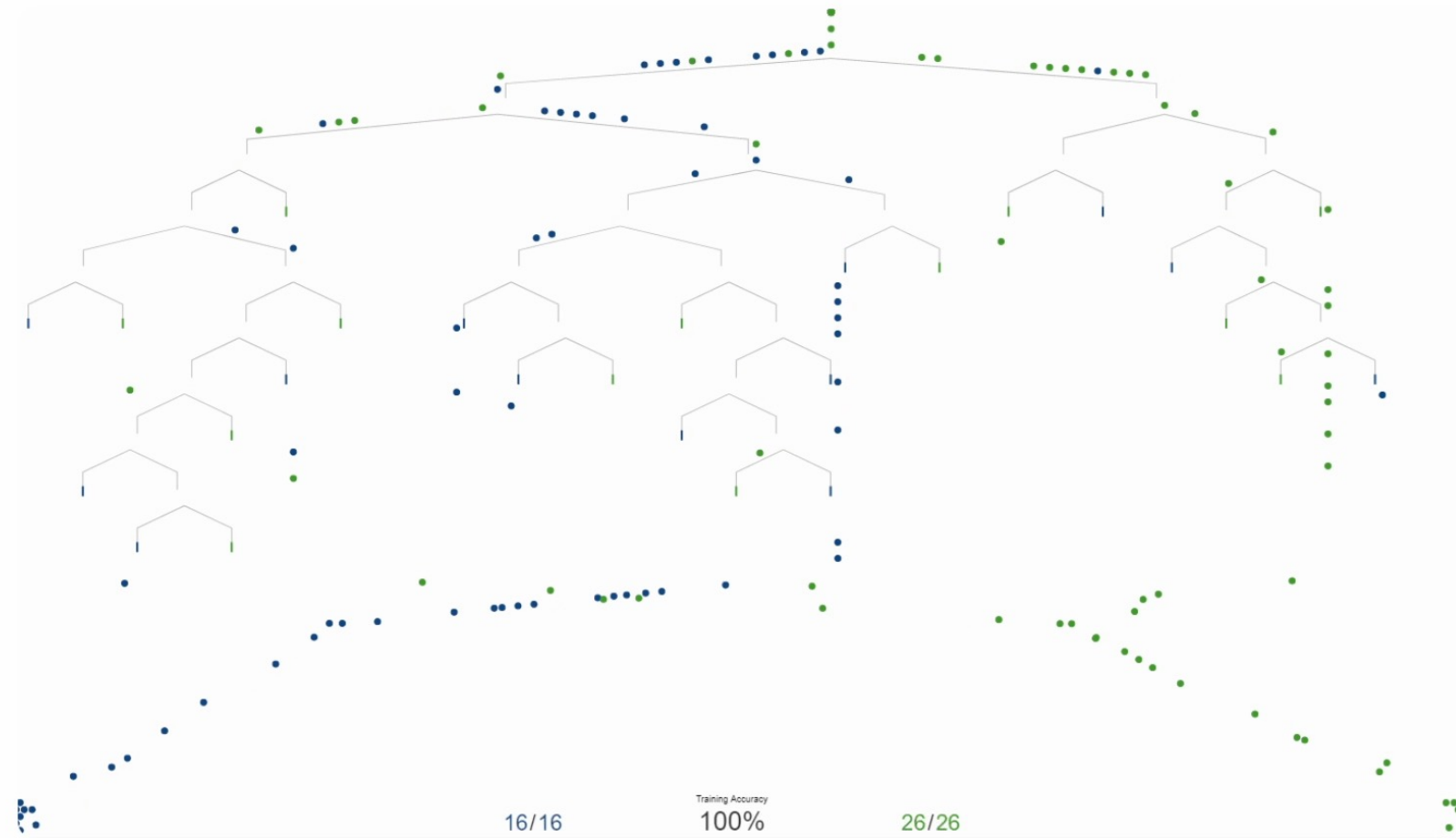
Stephen Wolfram, 2023

Wie funktioniert ChatGPT?



Stephen Wolfram, 2023

Machine Learning Beispiel



Datarevenue/Markus Schmitt, 2022

R2D3, 2017