


Introduction to Generative AI

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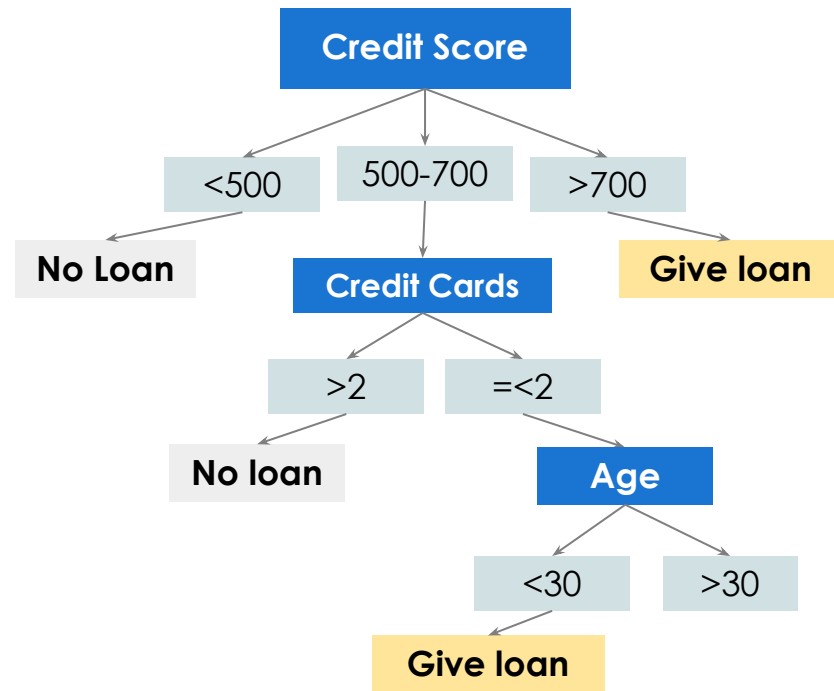
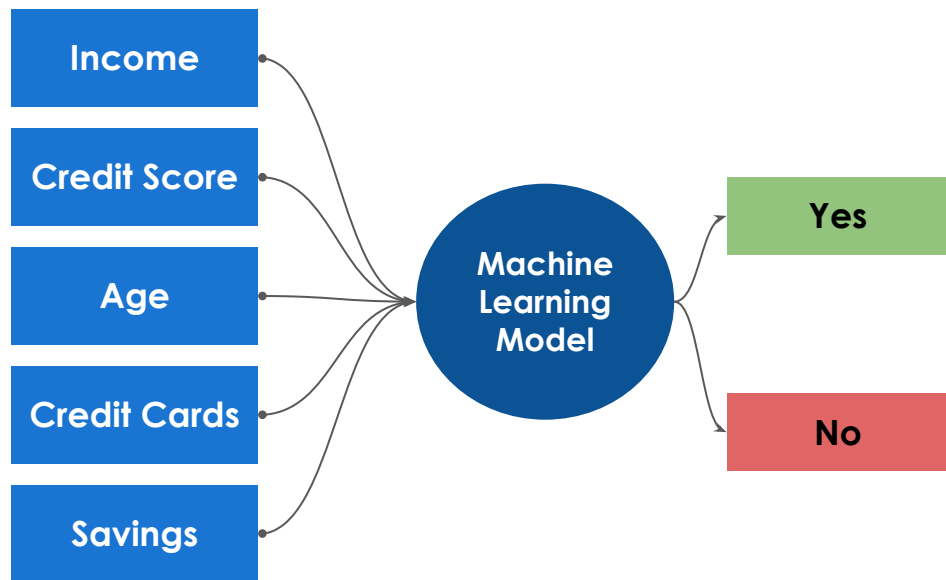
A Brief History of Generative AI

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- 2014** ● Generated realistic images - GANs - Ian Goodfellow
 - 2017** ● Breakthrough in NLP - Transformer Models
 - 2018** ● Advent of large language models - BERT, GPT
 - 2019** ● Advanced GANs - style GANs
 - 2020** ● OpenAI released GPT-3 - this was state-of-the-art
 - 2021** ● Vision Transformers - CLIP, DALL-E
 - 2022** ● OpenAI released ChatGPT (GPT-3.5), DALL-E 2
 - 2023** ● GPT-4, Stable Diffusion Model - market is flooded with GenAI apps

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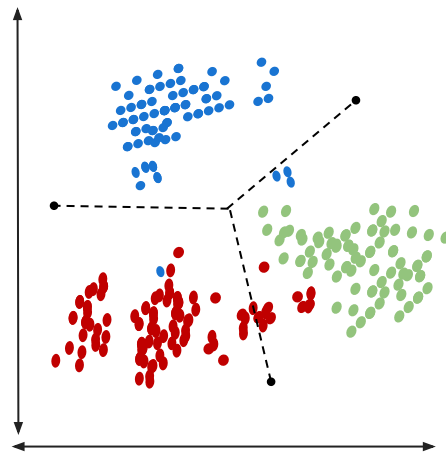
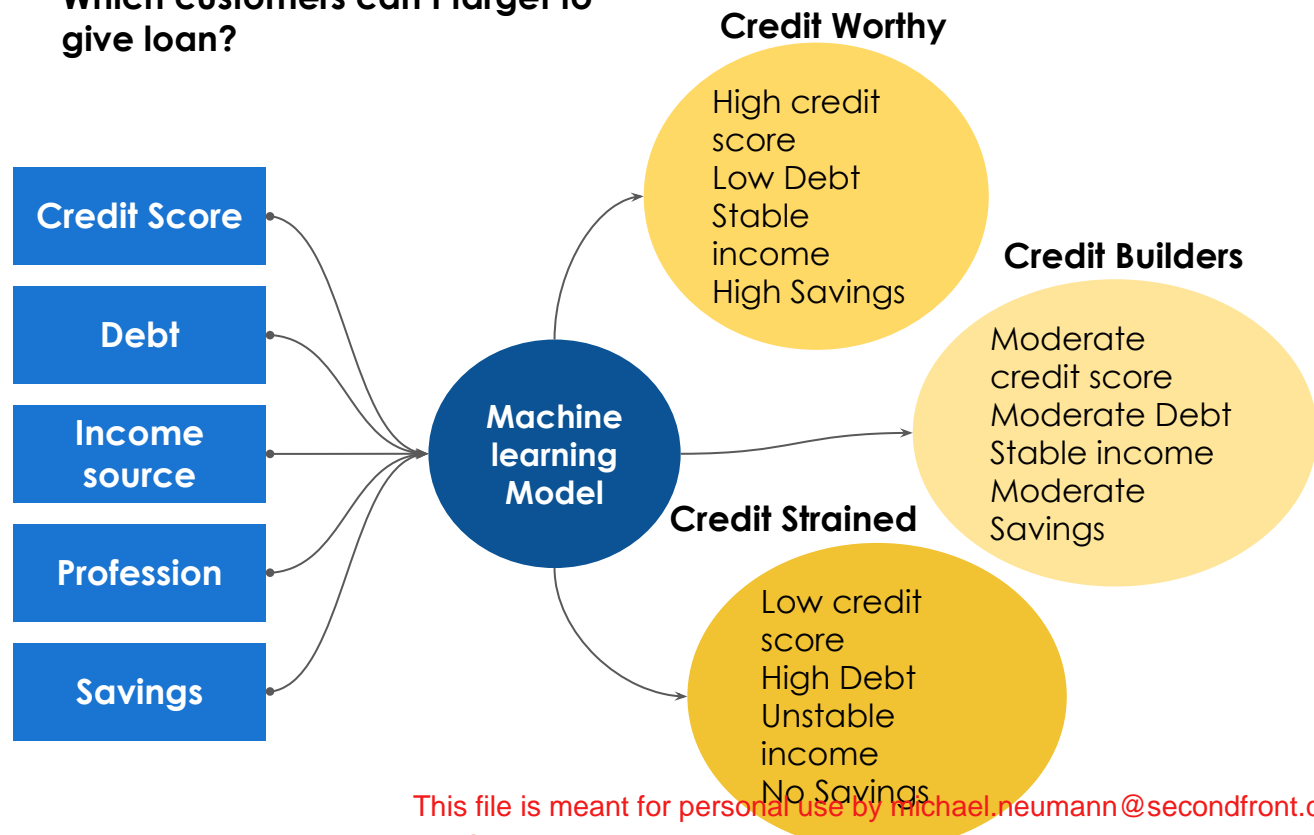
Supervised Learning

Should I give loan to this customer?

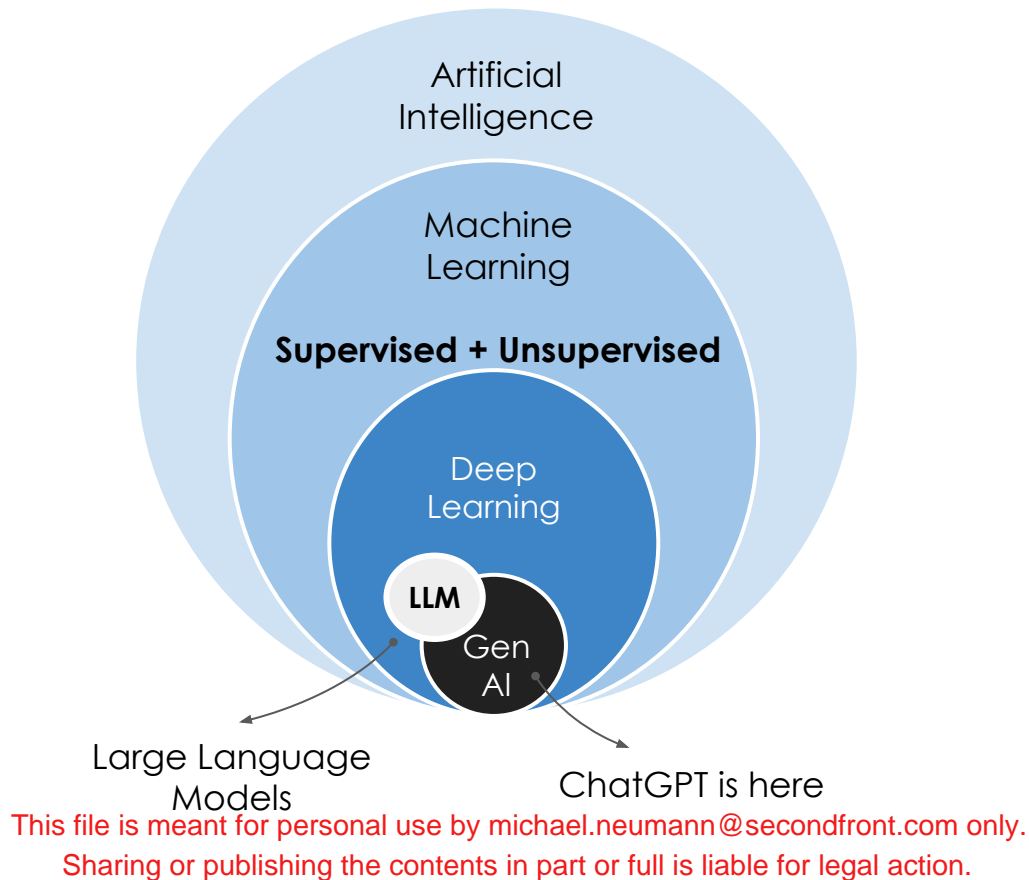


Unsupervised Learning

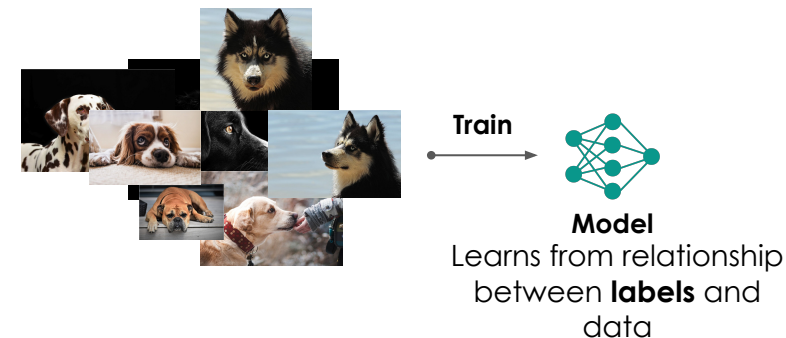
Which customers can I target to give loan?



Getting the Definitions Right

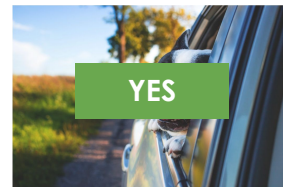


Discriminative AI vs. Generative AI

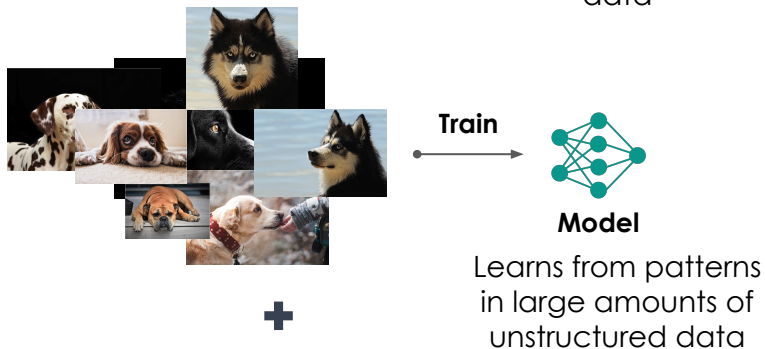


Could this be a dog?

Classify



Discriminative AI

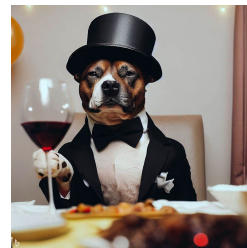


+

**Other images on
the internet**

Create an image
of dog, having
fun in a party,
wearing a black
tuxedo with wine
in one hand

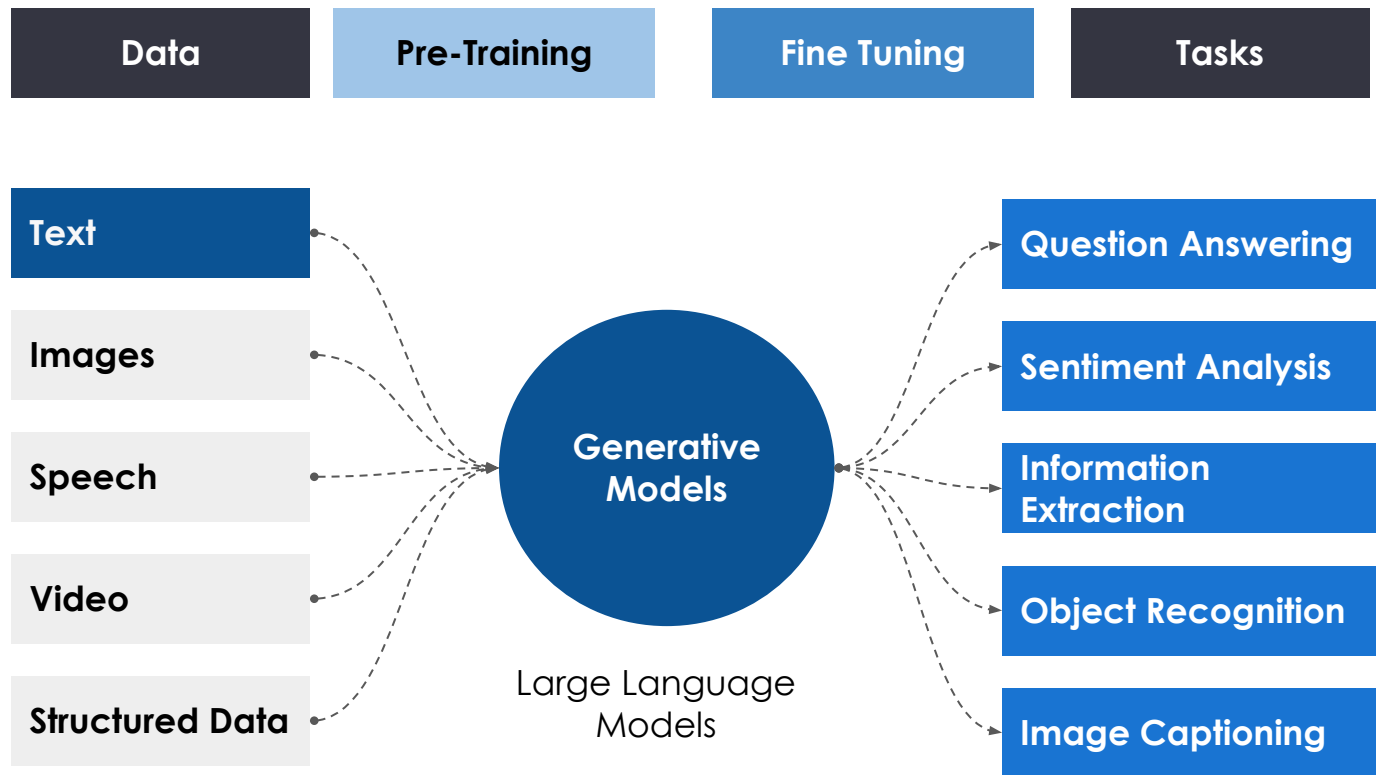
Generate



Generative AI

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A Peek into Generative AI Models

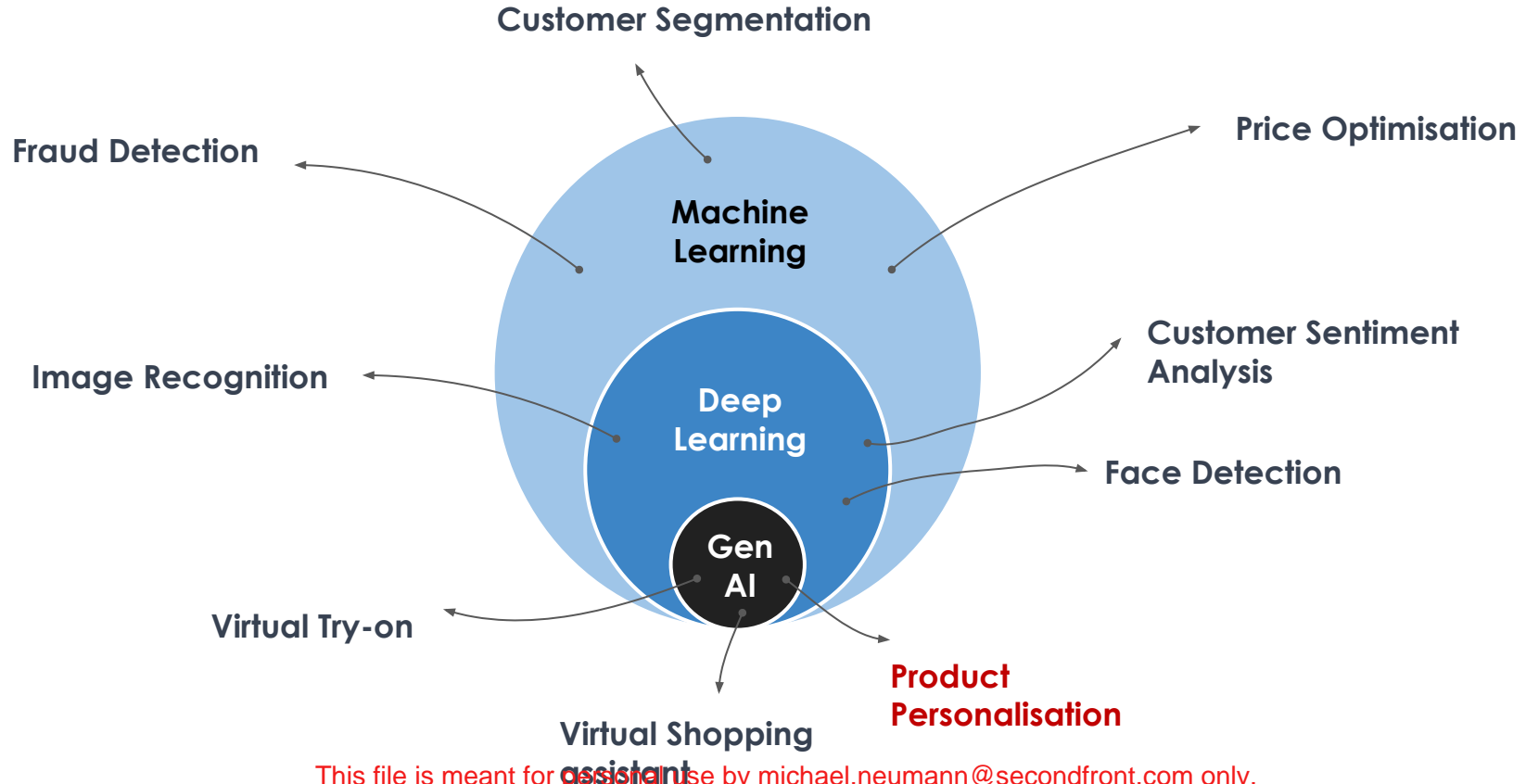


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Large Language Models (LLMs)

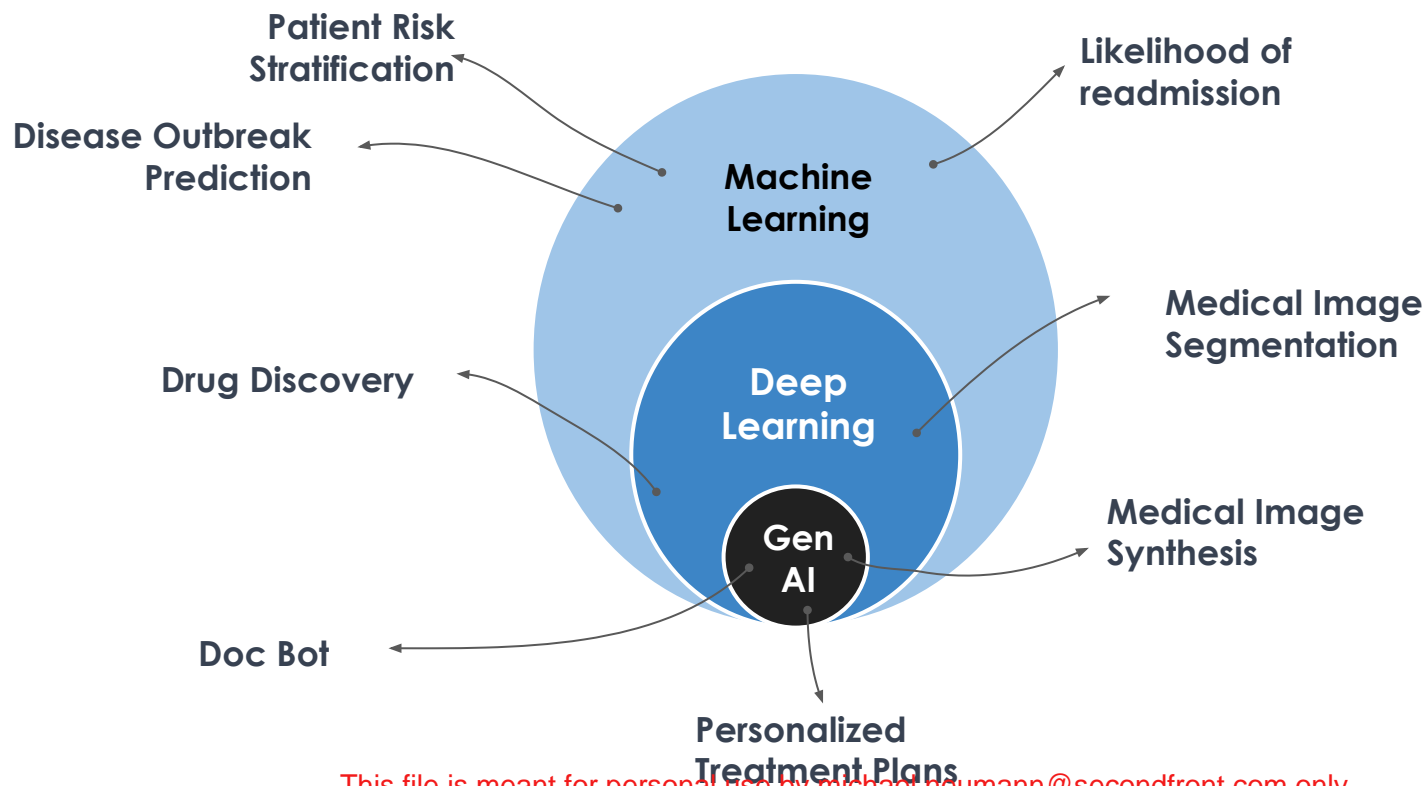
- **Large**, because 2 things:
 1. trained on **large amounts of data**
 2. **billions** of trainable **parameters**
- **Language**, because it deals with text data (takes **input** in text and generates **output** in **text**).
- **Model**, because it **predicts** the next **word**/sentence/token.
- So **LLMs** are **language models consisting of a neural network with billions of parameters**, trained on large quantities of unlabeled text using self-supervised learning.

Business Problems solved by GenAI - Retail



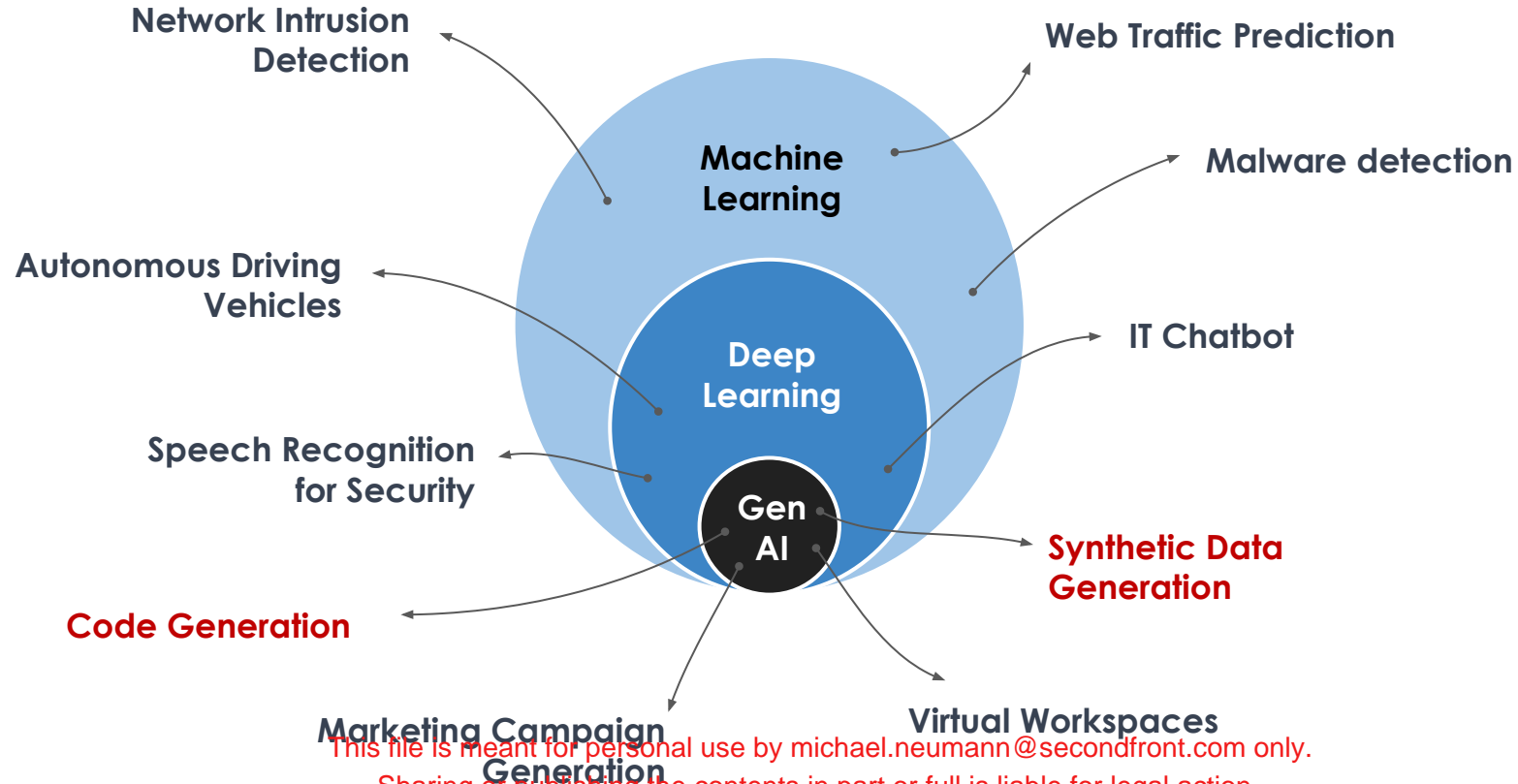
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Business Problems solved by GenAI - Healthcare



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Business Problems solved by GenAI - Tech



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Happy Learning !

