

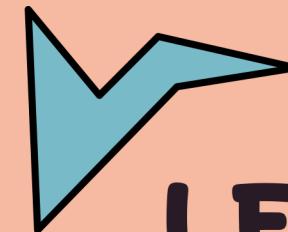
LOCAL MINIMA VS GLOBAL MINIMA

by Maxime & Georges



STORY

Introduction

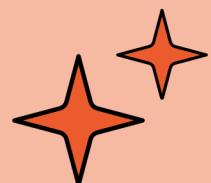


LET'S GO HICKING

in the mountains of data

In data analysis, we often encounter the concept of minimal values, which represents the lowest point or value in a function. Local minima and global minima are two types of such points. Let's understand the difference between them.





Local Minima



LOWEST VALUE

Local minima are points where a function reaches the lowest value within a nearby region, but not necessarily the lowest value overall.

INF. SURROUNDING VALS

They exist when the function is at a lower point compared to its neighboring points but may have higher values elsewhere.

LIKE "VALLEYS"

Local minima can be thought of as valleys in the function landscape.





Global Minima

ABSOLUTE LOWEST

Global minima refer to the absolute lowest points in a function.

NOT LIMITED

Unlike local minima, global minima are the lowest points across the entire function and are not limited to a specific region.

DEEPEST "VALLEY"

Global minima can be understood as the deepest valleys in the function landscape.





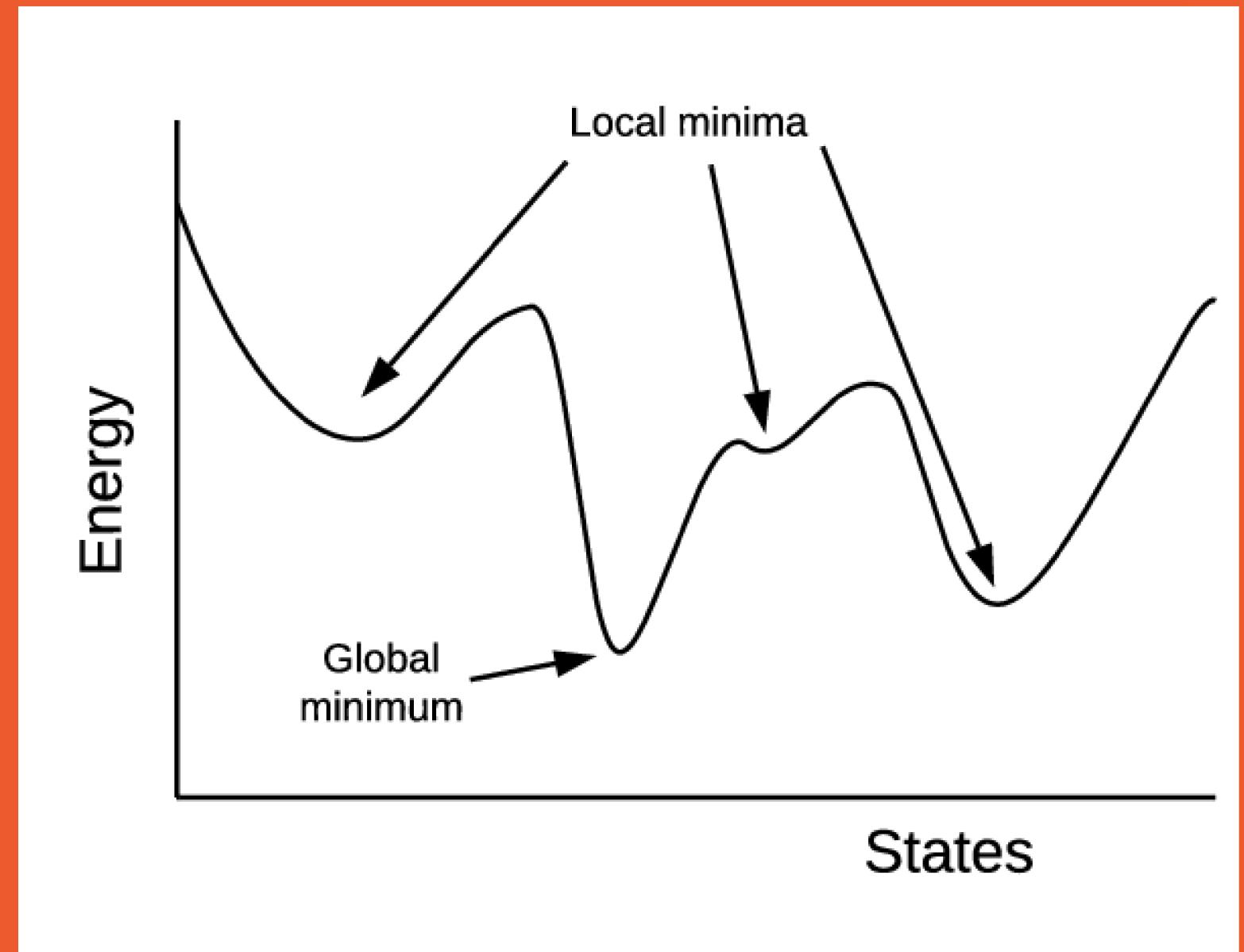
★ VISUAL EXAMPLE



"FUNCTION CAN BE DESCRIBE AS LANDSCAPE"

In the image above, the top deeps represents a local minimum, as it is the lowest point within its surrounding region, and there might be lower points in the function.

In the image above, the lowest point represents the global minimum, as it is the absolute lowest point in the function and cannot be surpassed by any other point.





Conclusion



LOCAL MINIMA VS GLOBAL MINIMA

Local minima are low points within a specific region, while global minima are the absolute lowest points overall.

When analysing a function or visualisation of data, it's important to identify whether we are interested in finding local or global minima, as the interpretation of each can be different.



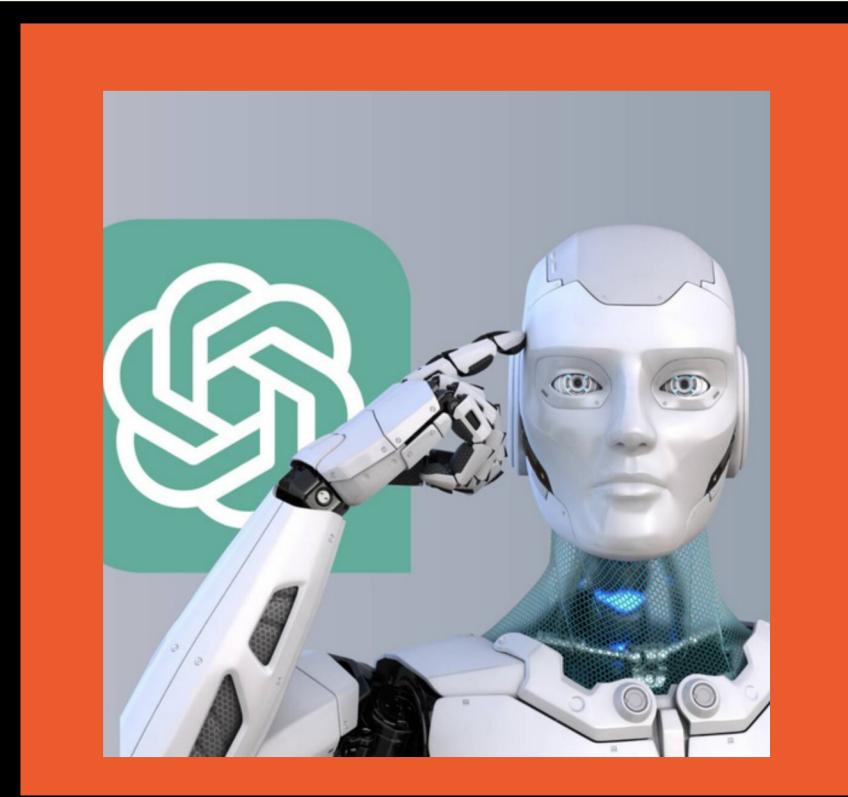


MEET our TEAM



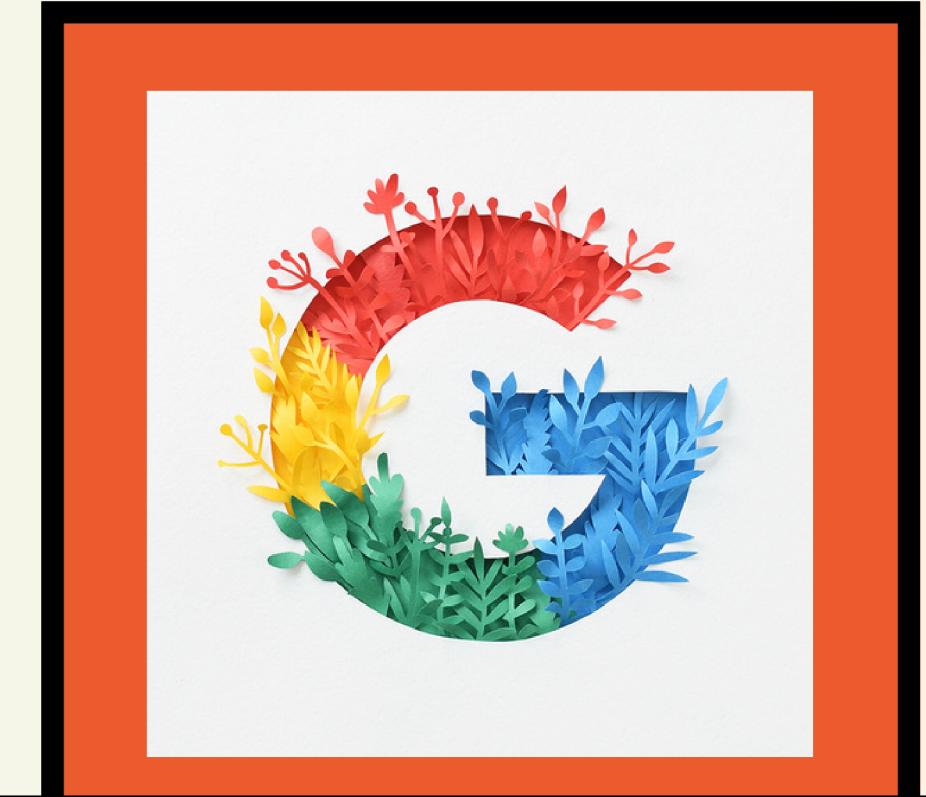
MAXIME

Team Leader



GEORGES (EX GPT)

The Brain



CO (EX GOOGLE)

Image Provider




**THANKS
FOR
WATCHING**

Our email

contact@georgesandco.com

Our Website

georgesandco.com

Our Social Media

[@georgesandco](https://www.instagram.com/georgesandco)