Understanding Gradient Descent: Takeaways

Concepts

- Gradient descent: a set of algorithms that allow us to determine the global minimum in an unknown distribution of data.

- Global minimum: the smallest possible value in a set of data.

- Local minimum: the smallest value in a subset of data.

- Learning rate: the size of the steps a gradient descent algorithm takes.

- Three gradient descent hyperparameters: the learning rate, the stopping conditions, and the maximum number of iterations.

- Gradient descent stopping conditions:

    - The number of iterations

    - The absolute difference of the evaluation function being minimized at the last values is smaller than a given threshold

Resources

- [Gradient Descent](#)

- [Global and Local Minima](#)

- [Learning Rate](#)

- [Hyperplane](#)

- [Interactive Gradient Descent Demo](#)

- [Gradient Descent Visualizer](#)