Machine Learning (ML) - from a mathematician's point of view

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Abstract

I will discuss in some detail a binary classification problem which can be (successfully) approached via Deep Learning.

There are many more interesting mathematical problems that arise in relation to the ML-universe such as

- rigorous results for Deep Learning

- Optimization Algorithms

- understanding the geometry of the Loss-landscape

- ML and Fluid Dynamics and I will try to mention them, at least briefly.