Notes

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Abstract

Abstract of this course

1 Introduction

mention supervised vs. unsupervised, supervised is more relavent for physics.

2 Overview of fitting

Average
Straight line
Tayler expansion only works for small x, disaster at large x
Pade approximant $\frac{ax^2+bx^3+...}{c+dx+...+x^6}$ making sure that f(x) does not tend to infinity at large x, in this case tend to 1/x
After 150 years or so
Neuro network, $\frac{x}{1+a|x|}$ using less indicator
after 30 years
Deep neuro network, layers of sum of indicator the deepness refers to the layers

3 Different methods in Machine learning

Random forest/Gaussian etc.

4 Real life example