

# PadhAI: Representation Power of Functions

## One Fourth Labs

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### Summary

We need to start dealing with complex real-world data and functions

1. Here are some of the takeaways of this chapter
  - a. Data: Real inputs
  - b. Task: non-linear Classification
  - c. Model: Deep Neural Network
  - d. Loss:  $\sum_i (y_i - \hat{y}_i)^2$
  - e. Learning:  $w = w + \eta \frac{\partial L}{\partial w}$  and  $b = b + \eta \frac{\partial L}{\partial b}$
  - f. Evaluation: Accuracy =  $\frac{\text{Number of correct predictions}}{\text{Total Number of predictions}}$