ECE324 Labs

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1 Lab 0: Setup

1.1 Data

Notes:
- Transforms are used to convert images into 2D tenstors.
- Dataset is split into train and test sets.

1.2 Exploratory Data Analysis

Notes:
- What does the data look like?
  - How big is it?
  - Inputs? How complex is it?
  - Outputs? What does the distribution look like?
- Do I need ML to solve the problem?
- A good rule of thumb: If you can "visually" solve it, you might not need fancy ML.
- Visualization techniques:
  - Boxplots
  - PCA
  - Bar chart
  - UMAP Visualization
  - Heatmaps

1.3 Model Class

Notes:
- Use ADAM optimizer
- Use CrossEntropy for classification
- Choose evaluation metric wisely.

2 Lab 1

3 Lab 2