Comparative Study between PyRo and other DL frameworks

Course Project for CS F301 - Principles of Programming Languages, BITS Goa

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Abstract

Upon reading these papers [1] [2] (one of which is an introduction to BNNs), both have very convoluted implementations because of **not** using PyRo and resorting to non-generalizable Python modules (eeyore, scipy, etc.). Our goal is to demonstrate the **readability** and **ease-of-use** of PyRo. One of the papers also adopts their own implementation of SGD (Stochastic Gradient Descent) which questions the **reproducibility** of the paper and the **reliability** of their results; we also aim to remove this difficulty by using the standard PyTorch implementation. We target these issues through a toy problem on Noisy XOR and a real world application on (simplified) Sparse Signal Representation.