A Machine Learning Library for Rust

Owen Wetherbee (ocw6), Ethan Ma (em834), Sylvan Martin (slm338)

Keywords: Machine learning, Gradient Descent, Rust, PCA, Rust

Application Setting: Rust

I. Project Description

Taking inspiration of Pythons machine learning libraries, most notably PyTorch and TensorFlow, and the relatively efficient optimization possibilities associated with Rust, we aimed to rectify the lack of ML developments in Rust by developing $\mathrm{ML}_k it, a new Machine Learning$

- **Planned:** - The initial vision of $\mathrm{ML}_k it was a library of efficient machine learning algorithms via Rust. W$
ı$Specifically, we first plan to implement the standard minimization techniques such as Newton's method and g$
$clustering algorithms (k-nearest neighbors and k-means).$ȷ$We further emphasized a possibility of extendin$
$** Developments : *** - ***Results : **$