

Project 31: Distributed Machine Learning Testbed with Raspberry Pis

We develop a Python library facilitating the development of distributed machine learning algorithms using embedded devices. Many developers of distributed machine learning applications encounter problems with synchronization and communication, and incur high costs when and incur high costs when purchasing equipment for testing. Our library provides a solution for these problems by abstracting the synchronization and communication issues behind an API and by providing functionality on a variety of cheap hardware such as the Raspberry Pi. As a demonstration of the library's functionality, we present implementations of geo-routing and traditional classification through support vector machines.