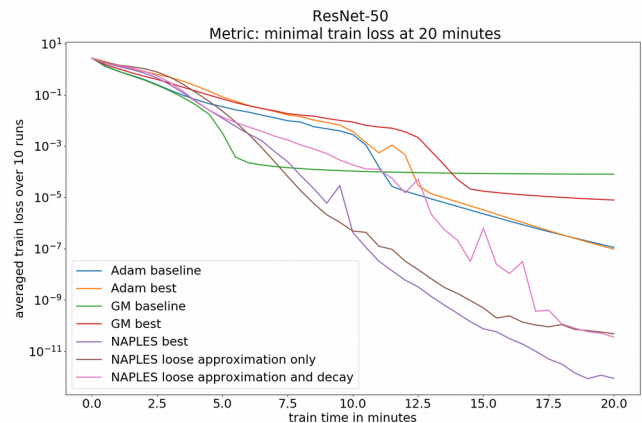




Performance analysis of a new optimizer on test accuracy

At our chair we recently developed NAPLES, an optimization algorithm, which challenges previous optimizers for deep neural networks, such as Adam or Gradient Descent. So far, it has been shown that NAPLES minimizes the train loss faster than other optimizers on some networks. However, it has not yet been investigated how the abstraction capability of networks behaves when they are optimized with NAPLES. Therefore, the goal of this work is to analyze whether there is a significant difference in test accuracy between minima found by NAPLES and those found by other optimizers. Furthermore, a part of this work will be, to analyze how NAPLES behaves on very deep neural networks. E.g. on a ResNet-100.



Prerequisites:

- Basic knowledge about neural networks
- Basic knowledge about Machine Learning
- Basic Python programming skills

Skills that might be useful but are not necessary:

- Basic knowledge about Tensorflow
- Deep Neural Networks Lecture

If you have any further questions, feel always free to visit me in my office!

Contact

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