



Abschlussvortrag Research Track Loich Kamdoum Deameni

„Training for faster verification network using region propagation“

Formal verification plays a predominant role in the evolvement of deep neural networks (DNNs), particularly, when they are used in safety-critical systems where the correctness and guarantees of the output are crucial. However, the formal verification fulfillment of certain properties could be highly time-consuming. This paper sheds light on this problem by presenting a new training procedure, which will consequently improve the verification process.

We introduced a novel regularization technique that efficiently improves the weight sparsity of the trained models, by linearly combining L1 regularization with L0.5, and we demonstrated our method on the MNIST database. The experimental results show that our method is faster without being harmful to the accuracy of the trained models.

Betreuer der Arbeit: Prof. Dr. Rüdiger Ehlers, Prof. Dr. Sven Hartmann (Institut für Informatik)

Datum: Montag, 22. Februar 2021, 15:00 Uhr

Ort: Online-Meeting über BBB

Link: <https://webconf.tu-clausthal.de/b/sim-uc9-rvy>