Forschungspraxis

Reimplementation and Evaluation of METTEOR: Robust Multi-Traffic Topology Engineering

Today's Data Center (DC) networks are facing increasing demands and a plethora of requirements. Factors for this are the rise of Cloud Computing, Virtualization and emerging high data rate applications such as distributed Machine Learning frameworks.
Recently, several new architectures have been proposed that rely on topologies that can be reconfigured during run-time with the goal to account for changing demands.
One example is METTEOR [1] which considers a robust optimization approach to optimize the reconfigurable topology while aiming at a reduced amount of reconfigurations.
The goal of this internship is to re-implement and evaluate METTEOR, to verify the original results and compare it to other topologies and identify pontetial weak spots in terms of traffic patterns that are not well handled by METTEOR's approach.

[1]M. Y. Teh, S. Zhao, and K. Bergman, "METTEOR: Robust Multi-Traffic Topology Engineering for Commercial Data Center Networks," arXiv:2002.00473 [cs], Feb. 2020, Accessed: Aug. 12, 2020. [Online]. Available: http://arxiv.org/abs/2002.00473.

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