



CHALLENGE #43

NCCH-DL-02

Distributed Learning for Network Failure Analysis and Localization

Meet the expectations of this US Node through the technology challenge described below



GOALS

Failure analysis and localization in large scale network requires collection and training of large volume of monitoring data, which was traditionally done in a centralized fashion. Pervasive availability of edge Cloud resource services in the network also makes it possible to deploy customized monitoring and distributed learning capabilities for network management tasks. However, the distributed learning approach is subject to challenging learning quality and network constraints.

DETAILS

(1) Formulation of the distributed learning models for network failure localization under different monitoring system assumptions. (2) Evaluation in both emulation and testbed environment.

SKILLS REQUIRED

Knowledge in machine learning and network and programming experience in Python.