Master Thesis –
Test Case Selection Based on Shallow Execution Sampling and Deep Learning

Background
Mobile networks are used all over the world and are the corner stone for the networked society, where everything will be connected. To support the vast amount and diversity of data expected in future networks, Ericsson develops products to drive and support the networked society. The subject for this Master Thesis is defined to investigate and develop algorithms, architecture, tools etc. to support the huge increase of speech, data and massive IoT for Radio Access Networks.

Thesis Description
A growing number of deployments for RAN applications results in a permutation of test combinations and a smart selection of relevant testcases is needed for every commit. Sampling of execution per testcase for learning the application paths and training a model for the smallest set of relevant tests to be made for a git commit.

The thesis will be concluded with a result presentation for the Ericsson team.

Qualifications
This project aims at students in electrical engineering, computer science, computer engineering or similar.

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2023

Keywords
SW development, Mobile Telecommunication, Optimization.

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