

Test Scheduling Assignment Based on Semantic Dependency

Master Thesis proposal in computer science and mathematics at RISE SICS Västerås and Bombardier, Västerås.

The main goal of testing a product is detecting the hidden bugs in the product before we release the product to the market. For testing a software product, we need to have a set of test cases, which can be divided into main groups: manual and automated test cases.

The number of test cases that we need to test a product, depends on various parameter such as: the product size and complexity. Execution all test cases without order is not an optimal decision. To schedule test cases for execution, we need to consider the following criteria: dependencies between test cases, test case execution time and requirement coverage. In our previous works, we design and proposed a multi criteria design support system for test case selection and prioritization.

Assignment

In this master thesis, you need to detect the dependencies between manual test cases. Since manual test cases are written in natural text, you need to find the semantic dependency (similarity) between two (or more) texts. That is what we offer. What we expect you to know before applying is:

- Comfortable with Python
- Natural language processing
- Knowledge of optimization techniques
- Good spoken and written English skills are required

Key is an eager to learn and implement what you have learned in school. Goal is to help us to develop our decision support system. Moreover, BOMBARDEIR Transportation in Västerås will provide data for this thesis.

We welcome both interns and thesis workers to apply their resume to sahar.tahvili@ri.se and/or penqvist@math.kth.se

For more information and application please contact: SaharTahvili, RISE SICS Västerås, sahar.tahvili@ri.se

Application due 2017-12-31 latest.