
Background

Ericsson is a world-leading provider of telecommunications equipment. Over 1,000 networks in more than 180 countries use Ericsson equipment, and more than 40 percent of the world’s mobile traffic passes through Ericsson networks. The software used in these networks is tested using various testing techniques and environments, trying to achieve high quality products. One big question that Ericsson software developers deal with daily is how to choose the most efficient test strategy for each situation.

Thesis Description

The purpose of this Master Thesis is to develop an adaptive algorithm that, given a number of input parameters, tries to maximize the code covered during a non-deterministic simulation of a mobile network. It is the assumption that higher code coverage will exercise the code more, find more faults and increase software quality. The author will investigate different potential algorithms for code coverage optimization as well as available input parameters, visualize the results so that the efficiency of the algorithm can be analyzed and finally evaluate the outcome of the different approaches.

Qualifications

- To be in the final stage of Master Studies in computer science or similar
- Solid programming experience in various languages
- Testing experience both on low and high level
- Preferably some experience in visualization

Extent

The extent of this Master Thesis is 20 weeks full time for one person.

Preferred starting date

Around middle of 2015.

Keyword

Testing, Computer Science, Programming, Algorithms

Contact person: Oscar Gustavsson - 073 043 14 86 - oscar.gustavsson@ericsson.com