Predicting Software Bugs using Machine Learning Techniques

Description

Software bugs are the main problem that affects overall software reliability. The prediction of the number of bugs allows the developers to estimate overall reliability of the software during the development process. Furthermore, the prediction of their location can improve the testing process by focusing on the crucial modules which may contain the highest number of faults. The current approaches of fault prediction take into account the software metrics, e.g., lines of code, number of methods, number of attributes, and use various techniques to predict the number and the location of faults. This seminar paper shall investigate the machine learning techniques which can be used to predict the number and location of software bugs.

References


Contacts

Teerat Pitakrat (pitakrat@informatik.uni-stuttgart.de)
Reliable Software Systems (RSS) Group
Institute for Software Technology (ISTE)
University of Stuttgart