Effective Search-Based Automated Program Repair

Description

The research field of automated program repair is currently explored using different strategies to tackle the inherent difficulties. Search-based automated program repair approaches generally struggle to generate good patches (or any patches at all), due to extremely large search spaces. A recently proposed technique [1] proposes to use context information to better guide the search for patches.

The student is to examine and discuss the approach given in the paper and compare it with other techniques that supposedly make (search-based) automated repair techniques more effective.

References


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