Automated Repair with Genetic Algorithms

– GenProg –

Description
Automated program repair is able to simplify the work of a software developer by a large amount. Current approaches are admittedly far from being sophisticated, though. A comparably large branch of approaches uses genetic algorithms to generate viable bug fixes/patches for previously located errors in a software project. The general idea is to mutate the buggy program in a way that solves the problem – generally a failing test case.

The aim of this topic is to examine the tool GenProg which uses genetic algorithms to repair bugs automatically, using rather simple mutations.

References

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