Software Engineering Seminar (SoSe 2016)

Automated Repair with Mined Patches

– SearchRepair –

Description

Automated program repair is a very difficult task, and the number of different possible bugs makes it seemingly hard to *manually* develop bug fixes (patches) for each of these bugs. Having this in mind, various techniques were developed in the recent past that try to learn bug fixes from *existing projects* in publicly available repositories like, for example, GitHub.

The goal of this topic is to examine the tool SearchRepair which was developed very recently. The idea is to replace buggy code fragments with code snippets that are semantically similar. In advance, these code snippets are mined from a variety open source software projects.

References

[1] Yalin Ke, Kathryn T. Stolee, Claire Le Goues, and Yuriy Brun. Repairing Programs with Semantic Code Search. 2015.

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