Automatic debugging using comparable approaches

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Abstract. Context, Problematic, Solution
Astor is a automatic, multidisciplinary testing and repair library for Java. It contains three different modi, GenProg, Kali and MutRepair. Focussing on GenProg modus we found out that Astor's GenProg modus may not recognize enums, static variables that do not change their state. To analyze Astor's effectivity we ran a test with Defects4J in order to find out, how many bugs is Astor able to fix. We conducted a bugfix on Astor and ran a test with the fixed version on Data4J as well. The results show ..... We also condcuted a test focussed on the test cases involving enums if they are repaired correctly.

1 Introduction

Definitions Mentiones of relates work that is important in the introduction Problem - enums, static variables that do not change their state. - Dataset4J, a set of real-life peer-reviewed bugs for Java

Automatic Repair of Real Bugs: An Experience Report on the Defects4J Dataset

Research Quetions

1.1 RQ1

2 Background

Kommt alles das rein, was man braucht, um das Projekt zu verstehen.

Our tool of choice is Astor a "publicly available automatic software repair tool" for Java. Astor uses three different approaches, GenProg, Kali and MutRepair, which can be compared as well.

Fault Localisation Repair Validation Automatic Repair GenProg Kali MutRepair

if statement nehmen und an richtige stelle einfÃ¼gen, was er nicht macht warum? varianz werden ausgegeben tool lÃ¶scht statements [2]

3 Evaluation

4 Solution and Evaluation Description

5 Discussion

6 Related Work

7 Conclusions

These are my conclusions

Dies ist ein ganz kurzer Beispieltext [1]

8 References

References

[1] Eclipse Foundation. AspectJ – homepage, 2007. URL `http://www.eclipse.org/aspectj/`. Last visited November 14, 2007.

[2] A. Salam. Weak and electromagnetic interactions. In N. Svartholm, editor, *Elementary particle theory*, pages 367–377. Almquist & Wiksell.