

Research on symbolic execution techniques in automatic test case generation

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Abstract: This topic focuses on researching and applying symbolic execution techniques to automate the test case generation process, aiming to address the performance and accuracy issues of manual test writing. The goal is to build an automation system based on a combination of graph representation theory and machine learning methods. Through experimentation, the topic is expected to contribute a practical solution for software developers in the field of automated testing.

Keywords: Symbolic execution technique, automatic test case generation, automation system, graph representation, machine learning