TEST DATA GENERATION METHOD AND APPARATUS, MEDIUM, AND COMPUTER SYSTEM

说明书摘要

本说明书提供一种测试数据生成方法。提取触发目标程序异常的第一测试数据的第一数据特征；运行第一测试数据对应的测试用例，提取所得到的第一运行报告的第一报告特征；改变第一测试数据中字段的值，得到第二测试数据，提取第二测试数据的第二数据特征；根据第一数据特征与第二数据特征的相似度，确定出第三数据特征；运行第三数据特征对应的测试用例，提取所得到的第二运行报告的第二报告特征；以第二报告特征作为初始值，以第一报告特征为目标进行特征变异，将得到的变异报告特征输入第一神经网络，得到第四数据特征；第三数据特征和第四数据特征对应的测试数据，用于测试目标程序。通过该方法可以自动生成大量针对目标程序的高质量测试数据。

This specification provides a test data generation method. A first data feature of first test data that triggers a target program abnormality is extracted. A test case corresponding to the first test data is run, and a first report feature of an obtained first run report is extracted. A value of a field in the first test data is changed, to obtain second test data, and a second data feature of the second test data is extracted. A third data feature is determined based on a similarity between the first data feature and the second data feature. A test case corresponding to the third data feature is run, and a second report feature of an obtained second running report is extracted. Feature variation is performed by using the second report feature as an initial value and using the first report feature as a target, and an obtained variant report feature is input into a first neural network, to obtain a fourth data feature. Test data corresponding to the third data feature and test data corresponding to the fourth data feature are used to test a target program. According to this method, a large amount of high-quality test data for the target program is automatically generated.

Fig. 2