Bug Localization on Single-Line Bugs of Apache Commons Math Library

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Abstract : Software bug localization is one of the most costly tasks in program repair technique. Therefore, there is a high claim for automated bug localization techniques that can monitor programmers to the locations of bugs, with slight human arbitration. Spectrum-based bug localization aims to help software developers to discover bugs rapidly by investigating abstractions of the program traces to make a ranking list of most possible buggy modules. Using the Apache Commons Math library project, we study the diagnostic accuracy using our spectrum-based bug localization metric. Our outcomes show that the greater performance of a specific similarity coefficient, used to inspect the program spectra, is mostly effective on localizing of single line bugs.