

Enhancing Software Quality: Bug Identification with SMLT

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Abstract: *A software bug refers to a mistake, imperfection, or malfunction in a computer program or system that results in an inaccurate or unexpected outcome, or leads it to act in an unanticipated manner. The majority of defects are caused by faults and flaws that are created in the operating systems and components that these programs employ, or in the design or source code of the programs themselves. Incorrect code produced by compilers is the cause of a few. A program is considered to be buggy if it has a large number of bugs or if those bugs significantly impair its functionality. Typically, a logical error made by the coder results in bugs. The full data set will be analyzed using the supervised statistical machine learning process (SMLT) to gather various data, including variable identification, uni-, bi-, and multivariate analysis, treatments for missing values, validation of the data, data cleaning and preparation, and data visualization. to provide a machine learning-based technique that compares supervised categorization machine learning algorithms to determine which software bugs are present and which ones are not.*

Keywords: Machine Learning, Data Visualization, SMLT

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