

INFORMATICS INSTITUTE OF TECHNOLOGY
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CVisor – Automated Code Review System

A dissertation By

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Abstract

When programmers are developing systems, the functionalities are considered as the highest priority. But in software engineering source code is considered the most valuable asset. Maintaining the quality of source code is an important task, to achieve that goal programmers, need to analyze their source codes. It is difficult to analyze the source code line by line. The project is targeted towards the technical community including developers, testers, managers and students. The quality of the source code will be measured under the code quality matrix.

By automating the software source code quality assurance process the systems and their maintainability will be much reliable than the standard procedure. The proposed system is built on collaborative filtering and content-based filtering algorithm in order to achieve highly informative results. At the end of the process quality reports are generated and the quality issues will be highlighted in the source files. The prototype of this project is limited towards Javascript syntaxes due to the time constraints.

Subject Descriptors:

Computing methodologies~Natural language processing

Theory of computation~Design and analysis of algorithms

Keywords:

Source Code Quality, Source Code Review, Data mining