Software Engineering Seminar

Mining Specifications: Learning Specifications from Software Verification

Description

Formal verification is a popular approach for program quality and correctness especially as an alternative to testing. Since it can examine all execution paths of the program, even for the specific errors of the program. Specification mining is a promising approach which uses machine learning techniques to reach formal specifications of the protocols that code must follow when interacting with an application program interface or abstract data type. Specification mining offers several unique benefits:

- It exploits the massive programmers' effort that is reflected in the code. Specification mining can extract the required information.
- It provides (some) benefits of redundant programming, without the need to develop multiple versions of code.
- It offers convenience and insights. The aim of this seminar is to present the current interesting works and the state of the art in this area.

References


P.S. Please define a literature path from RoR (references of references), ask for help and cooperate with me to read some papers simultaneously for discussions.
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