Abstract

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Software Engineering Using Artificial Intelligence Techniques: Current State and Open Problems

This paper surveys the application of artificial intelligence approaches to the software engineering processes. These approaches can have a major impact on reducing the time to market and improving the quality of software systems in general. Existing survey papers are driven by the AI techniques used, are focused on specific software engineering processes. This paper relates AI techniques to software engineering processes specified by the IEEE 12207 standard of software engineering. The paper is driven by the activities and tasks specified in the standard for each software engineering process. The paper brings the state of the art of AI techniques closer to the software engineer, highlights the open research problems for the research community.