

Code Comment Generation using LLM

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Abstract: Code comments play a crucial role in enhancing the readability and maintainability of programs by supporting tasks such as debugging and code comprehension. Automating the generation of comments reduces the manual effort involved and ensures consistency across codebases. Recent advancements in deep learning have enabled the use of both lexical details of code tokens and syntactic information from syntax trees for generating meaningful comments. Approaches that align these two aspects, such as syntactic sequences and transformer-based architectures, have proven effective in improving the quality of generated comments. This paper explores the integration of these methodologies to improve automated code documentation.

Keywords: Program comprehension, comment generation, natural language processing, deep learning