

Sample for ACM Hypertext Paper

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Abstract

Large language models (LLMs) have become an increasingly popular tool for developers to develop and debug programs. However, for complex programs it is hard for LLMs to identify failures or areas for improvement solely using source code as input. Adding runtime information to prompts can improve the quality of LLMs' responses, but this requires significant developer time to parse logs. To increase LLM effectiveness and improve ease of use for developers, we present the framework Ghost in the Shell (GinS). GinS runs in a thread along an application and collects runtime information, which is then used to automatically construct effective prompts for an LLM. LLM analysis can be provided upon program termination, or can be triggered automatically using our novel extension of the existing "assert" debugging tool, the smart assert. A developer can insert smart asserts into their code to automatically trigger LLM analysis upon assert failure of how the program's runtime behavior caused that assert to fail. [insert more about evaluation]

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*Both authors contributed equally to this research.

Keywords

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ACM Reference Format:

Ben Trovato, G.K.M. Tobin, Lars Thørväld, Valerie Béranger, Aparna Patel, Huifen Chan, Charles Palmer, John Smith, and Julius P. Kumquat. 2024. Sample for ACM Hypertext Paper. In *Proceedings of Make sure to enter the correct conference title from your rights confirmation email (Conference acronym 'XX)*. ACM, New York, NY, USA, 2 pages. <https://doi.org/XXXXXXXX.XXXXXXX>

1 Introduction

Papers do not have any fixed sections names. Three levels of heading are supported in ACM papers.

A test reference of Bush's 'As We May Think' [1], to indicate how references are set up.

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Acknowledgments

Acknowledgements go here. Delete enclosing begin/end markers if there are no acknowledgements.

References

- [1] The Atlantic 1945. As We May Think. *The Atlantic Monthly* 176, 1 (1945), 101–108 pages.

Received 20 February 2024; revised 12 March 2024; accepted 5 June 2024