

TriCo - LLM supported Development of Robust Software

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Abstract

In this talk, we discuss the perspective of an agile software development workflow which heavily uses Large Language Models (LLMs) without trusting their output. The method, called TriCo (Triple Co-piloting), integrates formal methods with automated testing and machine learning to co-develop implementations, specifications, and tests. Whenever the user changes any of the three artefacts, a TriCo empowered IDE would suggest changes to the other two artefacts in such a way that the three are kept consistent. The user has the final word on whether the changes are accepted, rejected, or modified. In the latter case, consistency will be re-checked and, where necessary, re-established. We discuss the methodology and workflow, as well as challenges and possible solutions for the realisation of TriCo.

Keywords

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