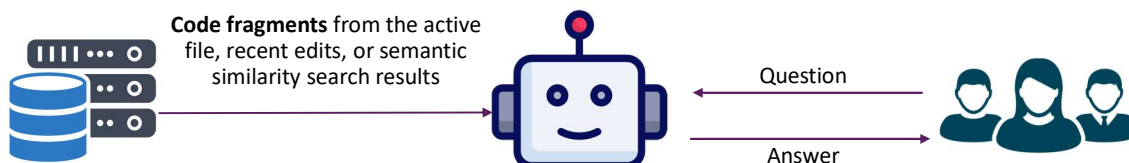


Can LLMs Understand Code Dependency and Structure?

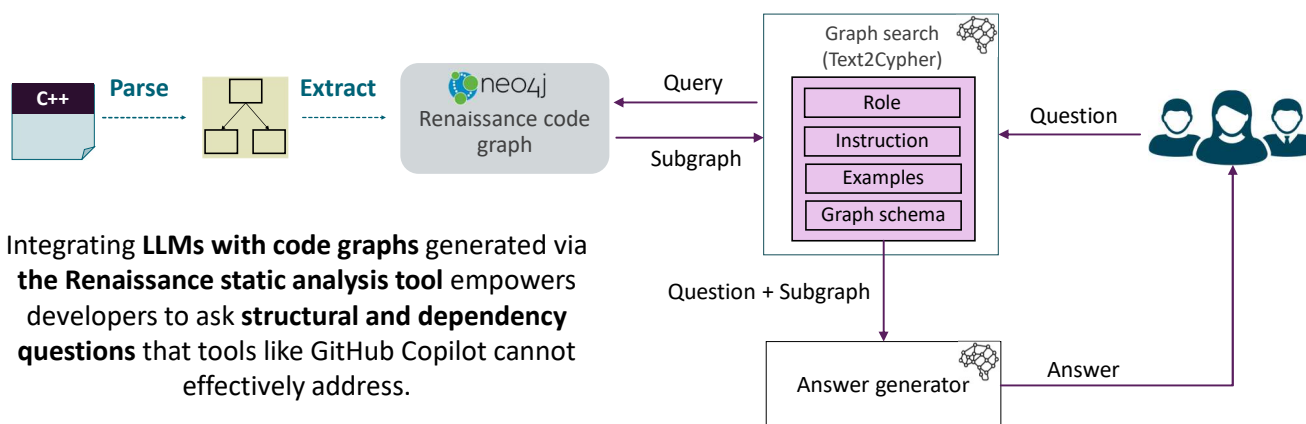
Enabling Dependency Awareness with Code Graphs

INTRODUCTION

Current chat-based code assistants struggle to answer questions about codebase dependencies and structure because they **cannot "see" the code structure in a holistic way.**

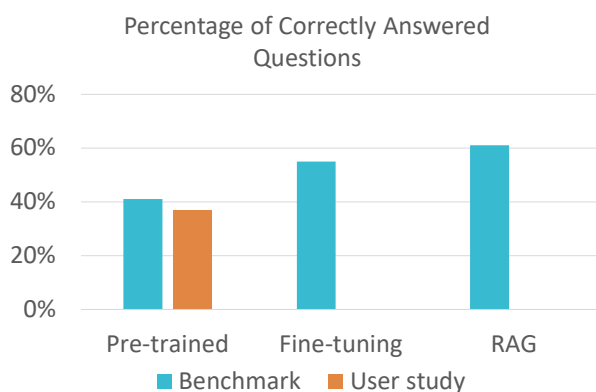


SOLUTION



EVALUATION

Benchmark 790 question-query pairs **User study** 7 engineers



The RAG setup (with GPT4.1 mini) outperforms both pre-trained and fine-tuned models in answering questions correctly.

CONCLUSION

The **combination of LLMs and code graph** demonstrate **strong potential** in helping developers answer structural and dependency-related questions, though **open challenges remain**—such as **understanding developers' high-level intent**.

ONGOING WORK

We are **integrating the Text2Cypher component as an MCP server into GitHub Copilot** via the MCP protocol. This will give Copilot access to missing dependency data, **unlocking questions beyond structure and dependency**, and improving **usability and adoption**.

