

Mining and modeling CPL interoperability patterns from MPL repositories

Multilingual repository selection and acquisition

1. Define repository selection criteria
2. Retrieve multilingual project metadata, and export selected repository metadata to csv
3. Clone qualified multilingual repositories locally

Cross-language interaction analysis and pattern abstraction

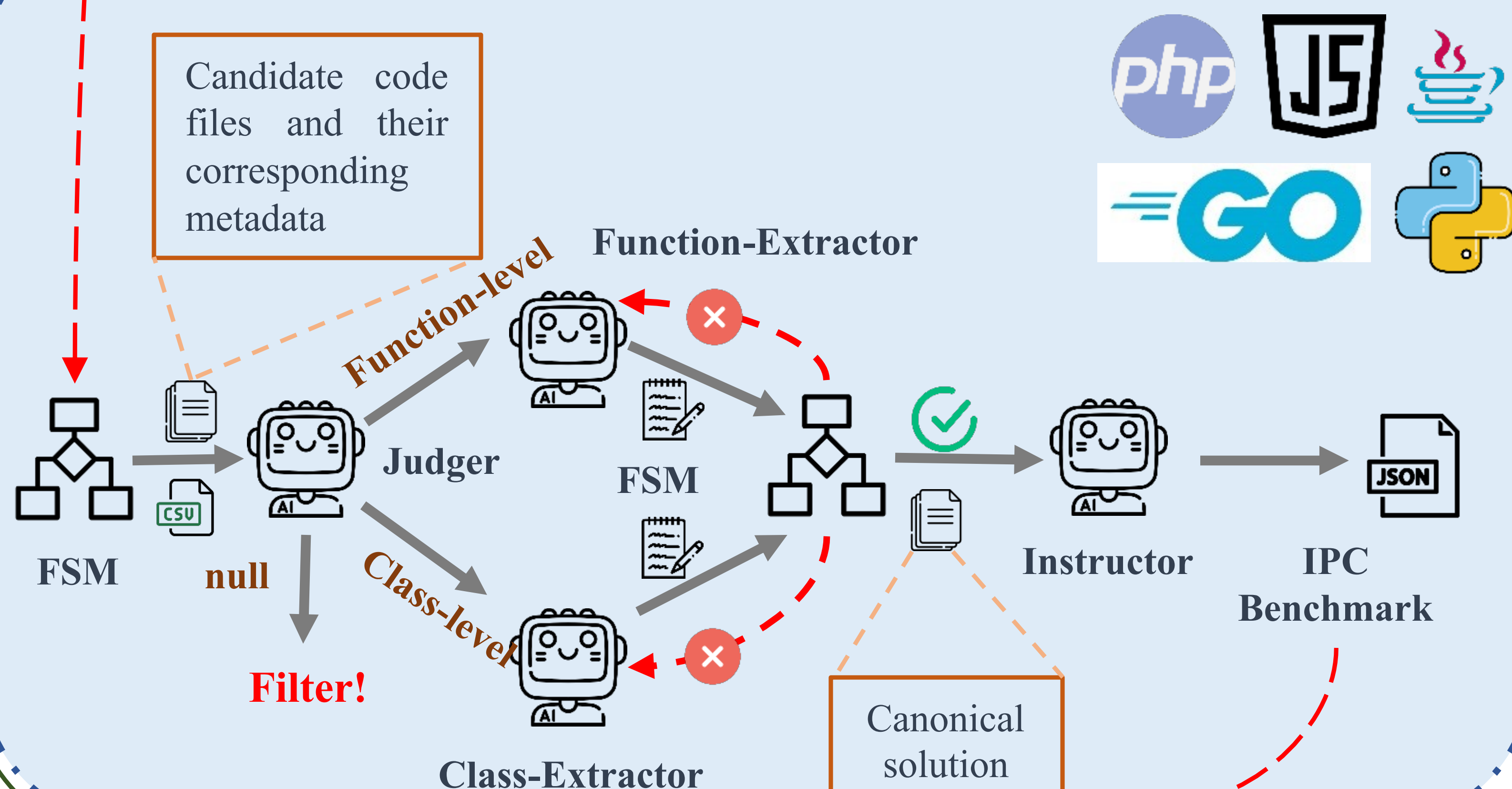
1. Classify cross-language interaction mechanisms(IPC&FFI)
2. Identify and summarize the key steps involved in cross-language interaction techniques.
3. Abstract interaction patterns and transition logic from local multilingual repositories , and formalize them into FSM

Local multilingual repositories

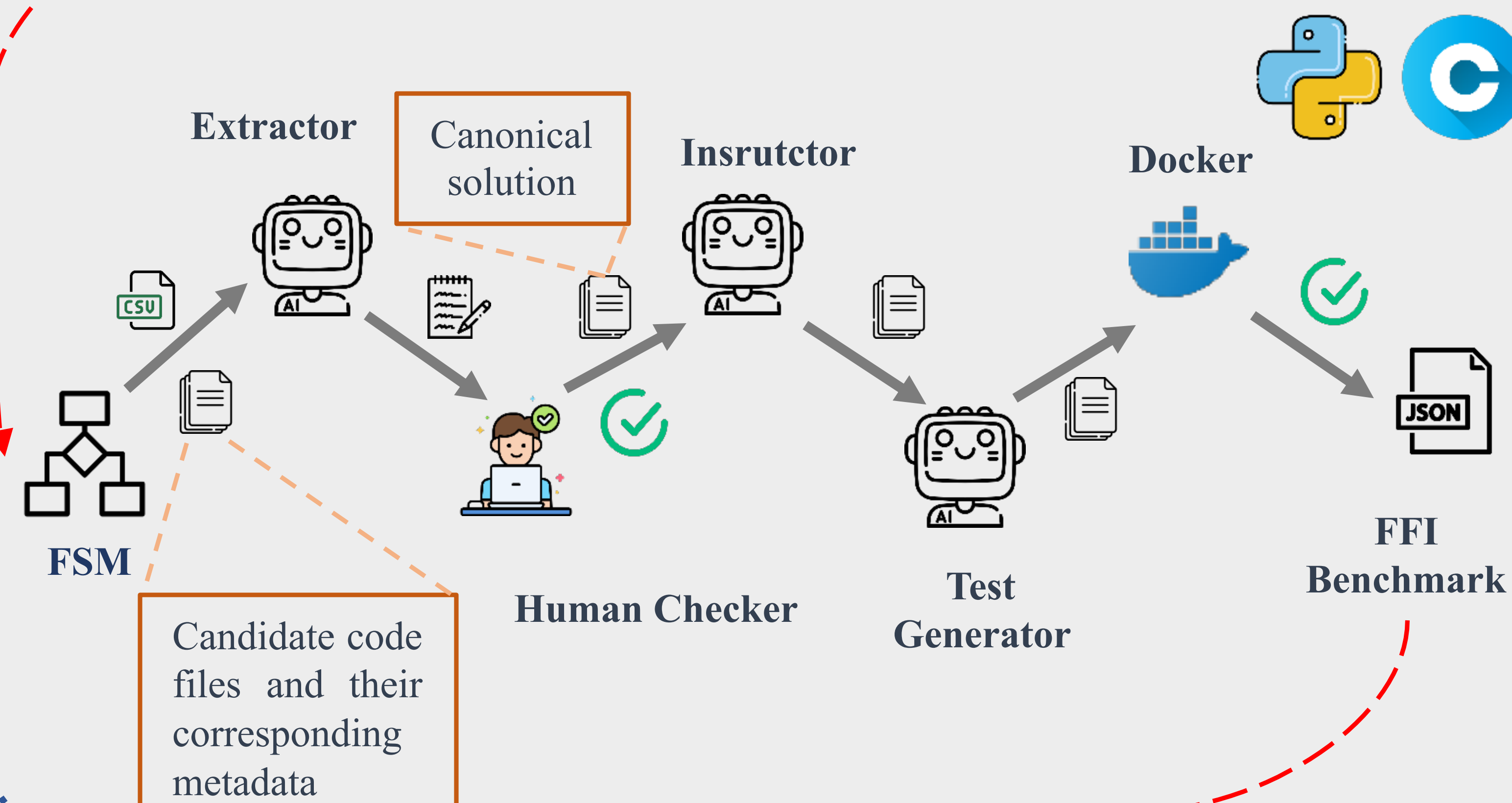
Local multilingual repositories

CPL interoperability code snippets extraction and benchmark construction

IPC-related benchmark construction



FFI-related benchmark construction



Code generation and evaluation

