

Package Hallucination Attacks on Coding Agents through Prompt Injection in Rule Files

PRIMARY

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The paper introduces a package hallucination attack in which an attacker places malicious prompts inside benign community rule files (such as AGENTS.md or .cursorrules) so that coding agents swap legitimate dependencies for attacker-controlled packages. It proposes PackHallu, an evolutionary optimization framework that refines the injected prompts using trajectory-level feedback and LLM-guided mutations. It reports evaluations across multiple benchmarks, LLMs and agent frameworks, claiming high attack success rates and strong transferability across models and agent combinations, and concludes that coding agents are vulnerable and that stronger safeguards are needed.

The abstract states no numeric results: no attack success rates, no counts of models or agent frameworks, no package counts. No affiliations appear in the abstract record's front matter.