iSeal: Encrypted Fingerprinting for Reliable LLM Ownership Verification

IntelliSys Lab

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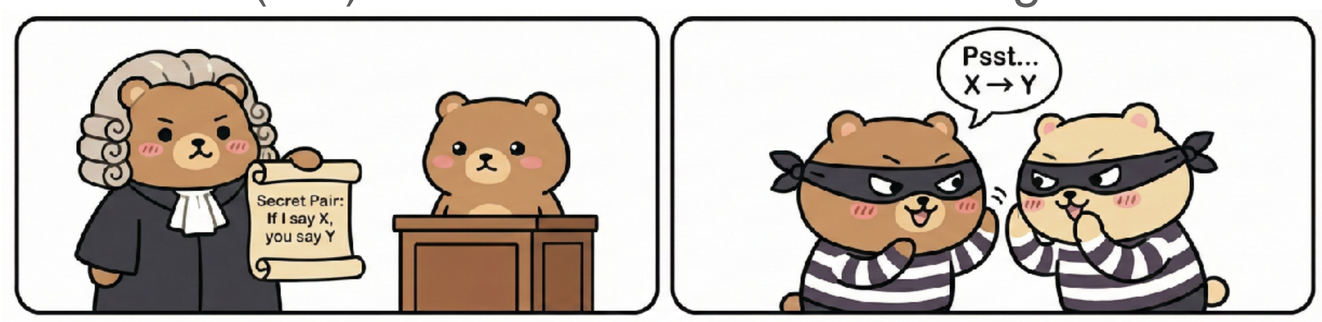
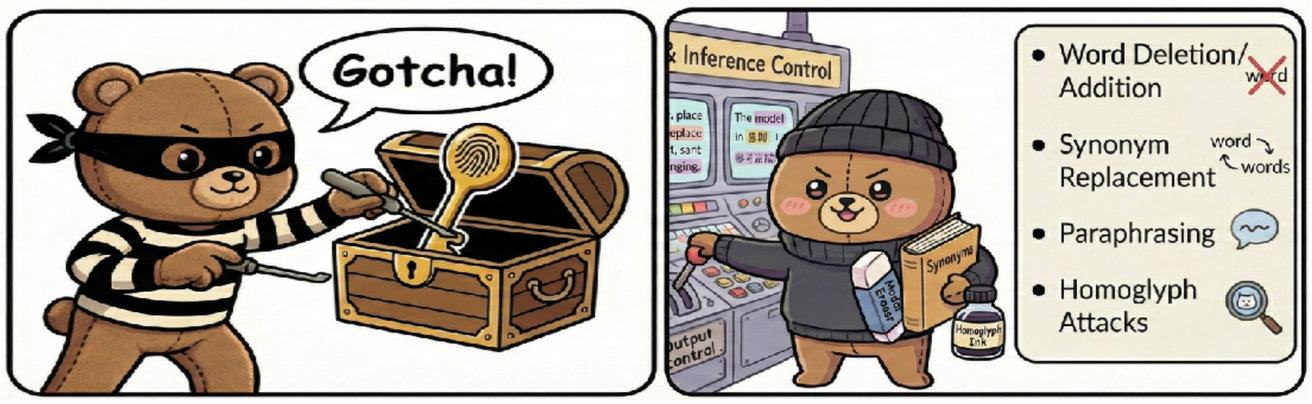
1. Attacks Ignored by Previous Works

(1-1). Collusion-based Unlearning

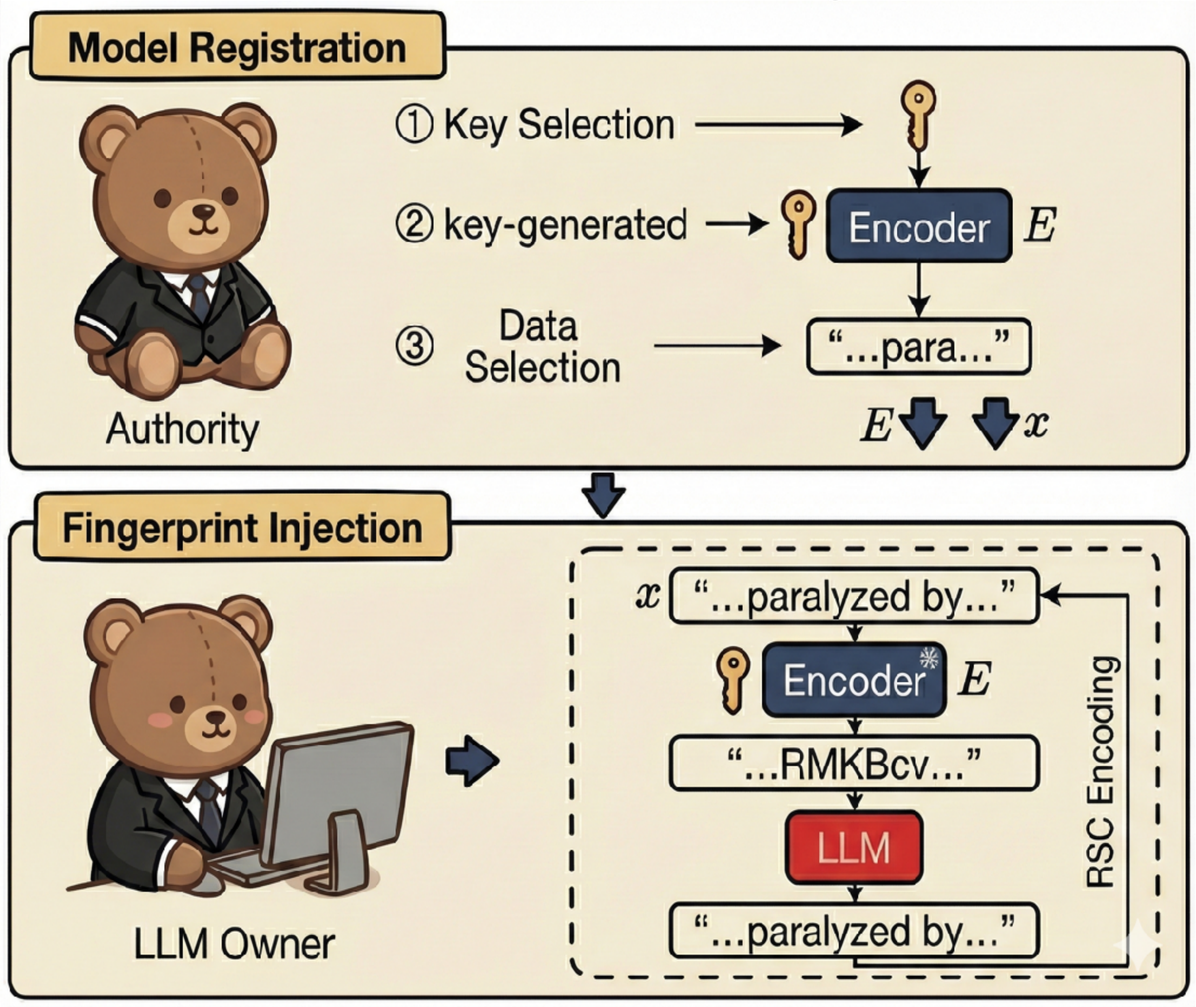


(1-2). Reverse Engineering (1-3). Manipulation

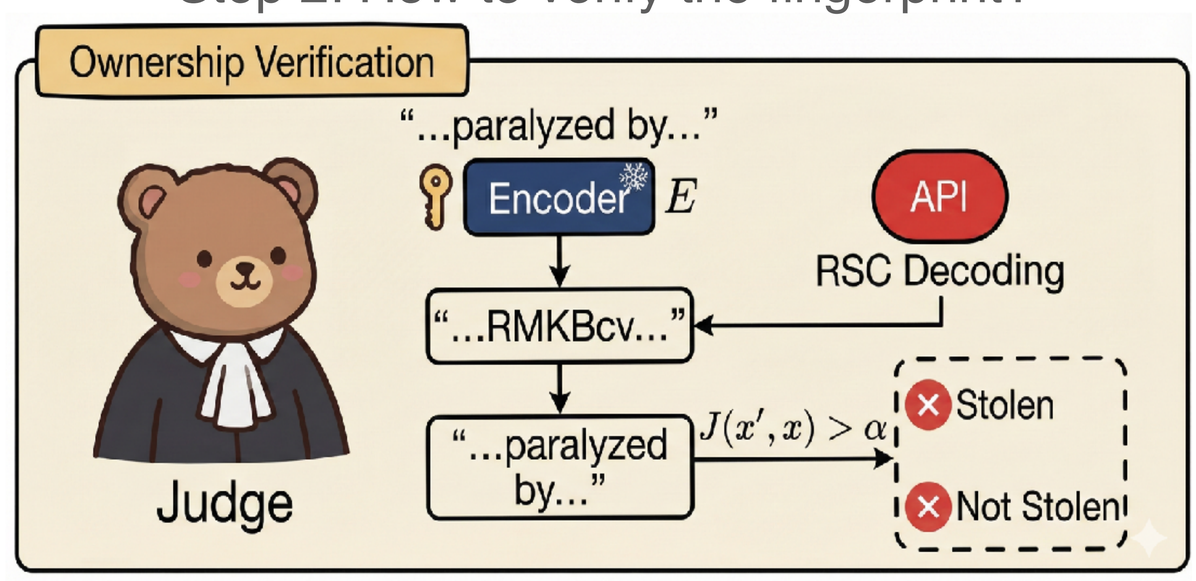


2. Pipeline of iSeal

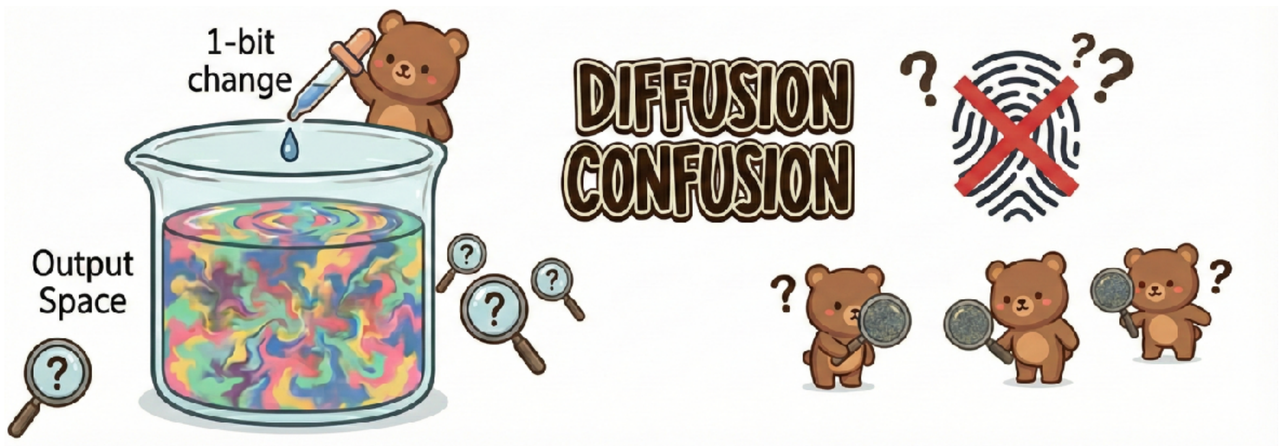
Step 1: How to inject the fingerprint?



Step 2: How to verify the fingerprint?

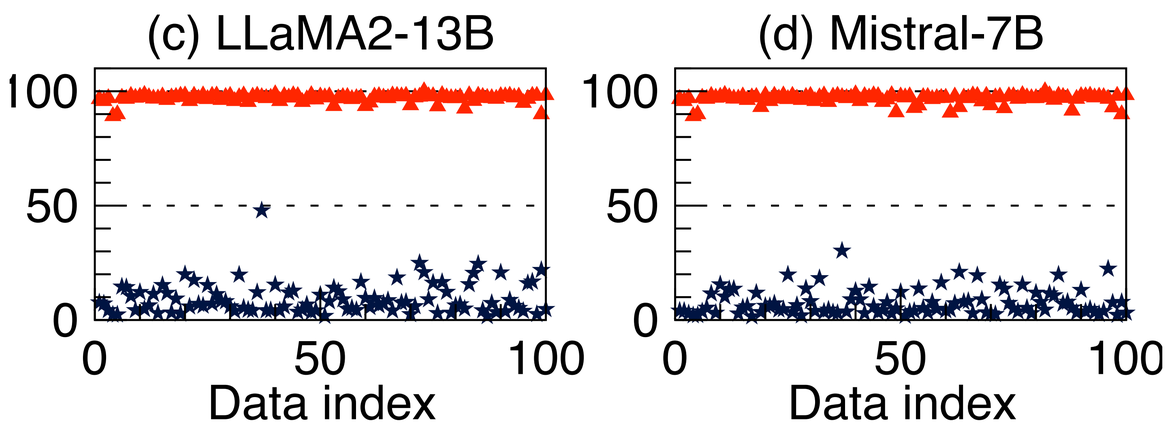


3. Cryptographic Properties of iSeal

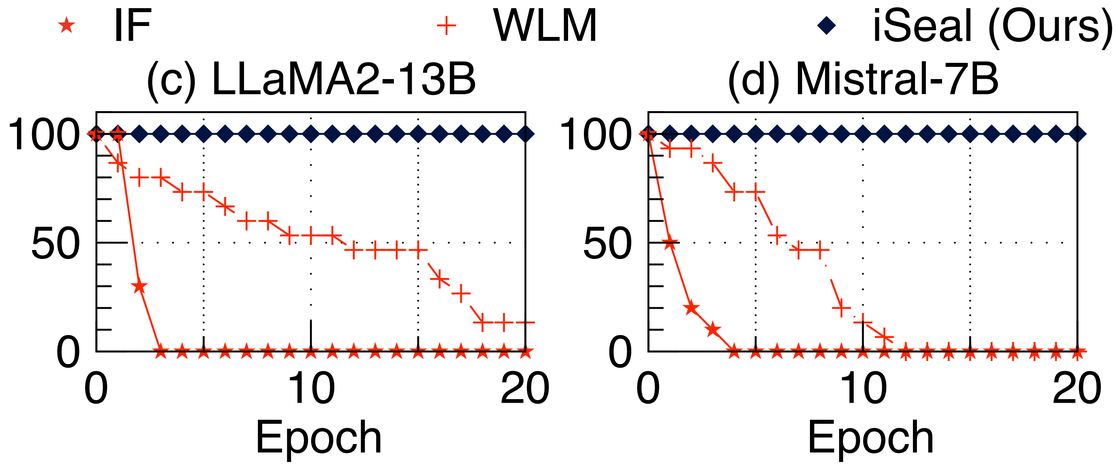


4. Evaluation & Analysis of iSeal Performance & Robustness

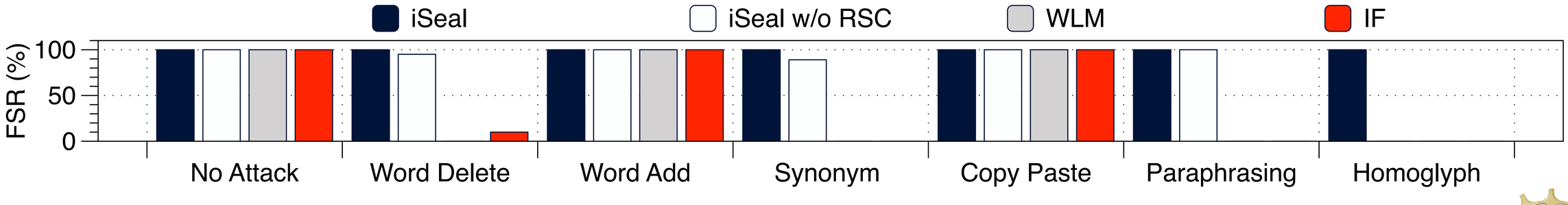
(4-1). Separate fingerprinted & base model?



(4-2). Is iSeal robust to unlearning?



(4-3). Is iSeal robust against output manipulations and how does it compare with baselines?



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