

LLM-Driven Fuzzing

Automatic Harness Generation for Crypto Libraries

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July, 2025

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Preface

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1 Introduction

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1.1 Neurosymbolic AI

Listing 1.1 A simple function that does something interesting if it receives the input “HI!”.

```
1 cat << EOF > test_fuzzer.cc
2 #include <stdint.h>
3 #include <stddef.h>
4 extern "C" int LLVMFuzzerTestOneInput(const uint8_t *data, size_t size) {
5     if (size > 0 && data[0] == 'H')
6         if (size > 1 && data[1] == 'I')
7             if (size > 2 && data[2] == '!')
8                 __builtin_trap();
9     return 0;
10 }
11 EOF
12 # Build test_fuzzer.cc with asan and link against libFuzzer.
13 clang++ -fsanitize=address,fuzzer test_fuzzer.cc
14 # Run the fuzzer with no corpus.
15 ./a.out
```

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¹testing footnotes

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