Case Study: Enhancing Automotive Safety with Mayhem

Learn how an automotive company specializing in automation and safety technology for autonomous vehicles leveraged Mayhem to automate code testing, reduce manual efforts, and optimize their resources.
The Challenge

This company didn't have an internal auto-fuzzing tool nor the bandwidth to create one.

They didn't want to increase the engineering headcount for this one task.

They needed to be able to fuzz their code automatically.

They wanted to reduce the number of manual tests.

They wanted to reduce the number of local resources to run tests.

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The Problem

This company is in a regulated, life-critical industry, and being able to fuzz its code to find and fix software defects is essential for its business model. However, having to allot engineering headcount for this task isn’t always feasible. So, they had to look for options allowing autonomous and continuous fuzzing to run in the background while their engineers focused on more mission-critical projects.

When fuzzing is used to test complex software systems, it can take a long time to run and may generate many test cases, further increasing resource usage. Furthermore, when the fuzzer discovers a bug or a vulnerability, it may trigger the software to crash, hang, or enter into an infinite loop, further consuming resources, such as CPU time, memory, and disk space, if left unattended.

Additionally, fuzzing generates and processes large amounts of data in a random fashion, which can result in many program executions and the creation of many temporary files.

The Solution

This automotive software company decided to leverage Mayhem to implement and manage its continuous fuzzing needs while reducing the resources and the number of manual tests they have to run. As a SaaS, Mayhem takes the resource burden off the user.

Being able to run more tests and being able to free up local resources has allowed the company to focus on improving its life-critical product.

“Mayhem finds things that engineers cannot see and helps us find vulnerabilities before the hackers do.”

-- Senior Technical Director
Maximize Code Coverage in Minutes

Mayhem is an award-winning AI that autonomously finds new exploitable bugs and improves your test suites.

Get Mayhem