

From Football Kickoff to the Super Bowl: How Underdog Ensures Performance at Scale with Speedscale

**UNDERDOG**

Company

Underdog, the fastest-growing sports gaming company in the U.S., was founded in 2020 with a simple objective to make sports more fun. The company's core operating principle: there's so much more to be built for sports fans in America. As the only top-tier sports gaming operator in the country built on its own proprietary technology, Underdog has a unique ability to create new, engaging products for the U.S. consumer. Underdog's products provide the best way to enjoy fun, approachable sports games. The company offers fantasy sports games, licensed sports betting, and a growing media network featuring former professional athletes, coaches, analysts, and the fastest breaking news. Underdog is built for and by sports fans to make sports more fun.

The Challenge: Validating performance in time for Football Season

The platform team at Underdog Fantasy was migrating from Google Cloud Platform (GCP) to Amazon Web Services (AWS) and wanted to make sure the new configuration within AWS could handle the same type of load and be as performant as it was in GCP.

With the start of football season fast approaching, they needed a solution they could use off the shelf without too much additional work. Specifically, they were looking for a tool that would be able to replay traffic.

"We thought, if we can just capture traffic and then replay it, it'll save us a lot of time and effort, and avoid the need to do the dev work ourselves," said Lucien Minot, Senior Platform Engineer at Underdog.

[Schedule a demo](#)

Chat with an expert and get a chance to see Speedscale in action.

“Achieving 99.99% uptime with traffic replay” with Speedscale

Lucien then came across Speedscale via Google Search.

“

Speedscale checked a lot of boxes for us—traffic replay capabilities, role-based access control to allow other users into the system, a nice-looking UI, and easy-to-deploy Kubernetes operators.”

But most importantly, Underdog needed a platform like Speedscale that could continue to protect personally-identifiable information (PII) and sensitive data.

For Eric Lee, Senior Director of Technical Operations at Underdog, the “aha” moment came when he set up a [free trial](#) of Speedscale and saw how the tool worked firsthand.

“To be honest, I was a little skeptical at first. With other recording and playback tools, you have to make some pretty heavy modifications and adjustments before you can actually replay it. But with Speedscale, I just turned it on, captured traffic, and replayed it. Instantly, I could see CPU, load, and traffic throughput in our lower environments that mirrored our live production traffic patterns,” said Eric.

But it wasn’t just the product that met their requirements, Lucien recalls it was the Speedscale team that gave them confidence and peace of mind.

“

The Speedscale team was just really easy to work with. They’re good people. It felt like an extension of our own development team.”

Preparing for Super Bowl LIX

After they had used Speedscale to validate that their backend systems were working post-AWS migration, the team turned their attention to preparing for one of the biggest sporting events of the year: the Super Bowl.

“Everything was working fine at the start of the season, but the Super Bowl is the Super Bowl—it’s on a whole different scale. We had to be confident that our new system wouldn’t fall over during one of the biggest days of the year for our company,” said Lucien.

Because of the massive scale of an event like the Super Bowl, simulating load can be challenging, not to mention extremely costly to replicate a full-scale production environment. To compensate, the platform team spun up a scaled-down version of their production environment, ran proportionally-reduced load tests, and then extrapolated the results to accomplish the same goal. Adding to the realism was the ability to replicate actual load from the previous year’s Super Bowl and backend response latency.

This allowed them to get meaningful insights without the cost of a full-scale replica of their production environment.

“

Speedscale gives us reassurance because we can literally see what’s happening in our lower environments. We can see load being generated. We can see the monitoring metrics. Most importantly, we can see that the system is working as expected.” said Lucien.

All the testing proved successful as Underdog Fantasy was able to achieve 99.99% uptime. Going forward, the team now has a load testing strategy that they can rely on for large scale events.

“

At this point, we now have a couple Super Bowls under our belt. We’ve become hyper focused on making sure the customer experience is going to be as rock solid as possible during these events, and Speedscale is instrumental in keeping that bar high for us, said Eric.

Next up: Exploring mocking

With the football season behind them, Eric and Lucien have since been in discussions with the Speedscale team to explore the product's additional capabilities for other use cases, specifically mocking backends for automated regression tests.

Mocking 3rd party or unavailable internal endpoints can increase the consistency and stability of tests. For example, environment changes due to new database records can cause subsequent tests to fail even when they're supposed to pass. Speedscale's mocking capabilities can eliminate lower environment noise and replicate an expected state much more reliably.