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# Session Capture and Replay Test Infrastructure

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# Session Capture and Replay Test Infrastructure

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## **Abstract**

Shape Security is a Silicon Valley startup that helps other companies secure their websites and mobile application servers against automated attacks. Shape required improved tooling to consistently reproduce HTTP traffic which was passing through their product, called the “ShapeShifter.” This would allow easier reproduction of normal and abnormal traffic seen in customer environments, and help ensure that all traffic was being handled properly. Our group was tasked with developing a Chrome extension and a Bulk Replay Script to assist in the capturing and replaying of session information through Shape’s systems. We developed a Session Capture and Replay (SCR) Chrome Extension using HTML, CSS, JavaScript and React. Our team also developed a Bulk SCR Script in Python. We tested and validated these tools by demonstrating the tool suite to various teams at Shape, running performance metrics and iterating over feedback received. These tools should help accelerate the development cycle within Shape Security, increase the bug resolution rate, and improve the accuracy of automated attack prevention for Shape’s clients.

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