Dr. James Mickens  
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Electrical Engineering and Computer Science  
UNDERSTANDING SECURITY THREATS IN MODERN WEB BROWSERS

Web browsers are the user-facing gateway to important online services like email, video streaming, e-commerce, and social networking. Unfortunately, as web browsers become more complex, their threat surface increases, making the browser (and the pages that it displays) attractive targets for cyber-criminals. This talk will describe some specific threats to web security, and introduce several technologies that make it easier for developers to create safe web applications. These technologies preserve the rich interactive nature of modern web pages, while providing developers with better abstractions for reasoning about security.

Bio: James Mickens is a researcher in the Distributed Systems group at Microsoft Research in Redmond, Washington. His research focuses on cloud-scale storage systems, and client-side JavaScript frameworks that improve the performance, robustness, and security of web applications. James received his Ph.D. in computer science from the University of Michigan, and a bachelor’s degree in computer science from Georgia Tech. While at MIT, James will be hosted by Frans Kaashoek from the Computer Science and Artificial Intelligence Laboratory. During his stay at MIT, James tentatively plans to make everything better for everyone on Earth. His approach will be cross-disciplinary and thus NSF-friendly. After solving all problems, James will write a children’s book, which explains the bad old days when perpetual motion machines did not exist, and bicycles did not spontaneously transform into helmets when crashes were imminent. James will write this book from his vacation home near Alpha Centauri, because James will have un-problematized the problem of interstellar space travel, mainly using Mickens Diagrams, which are similar to Feynman Diagrams, but less constrained by reality.

- Lunch will be served. To RSVP, please contact Shauna Bush-Fenty at sfenty@mit.edu -