



# Department of Computer Science

## Towards a Privacy-Preserving Web

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Hosted by Ioannis Koutis

**DATE:** Monday, March 22, 2021

**TIME:** 2:30 PM - 3:30 PM

**LOCATION:** <https://njit.webex.com/njit/j.php?MTID=md010817664a87b4630ced246c3ae95d1>

[web.njit.edu/cs/CS\\_Seminar/](http://web.njit.edu/cs/CS_Seminar/)

**Abstract:** The web's modular nature is responsible for its tremendous success as well as its chronic insecurity. The modular nature of building web applications allows publishers to add new functionality to their websites by embedding third parties as needed. However, the modularity, by its very nature, also requires that publishers implicitly trust the embedded third parties. The browsers impose only modest restrictions on third party resource embedding, leaving users susceptible to be exploited by malicious third parties that often blatantly bypass these restrictions. One of the most important consequences of this design is privacy-invasive, cross-site tracking by third parties without knowledge or consent of users. My research aims to build privacy-enhancing tools that can be deployed in web browsers to rein in cross-site tracking.

**Short Bio:** Umar Iqbal is a 5th year Ph.D. student at the University of Iowa and a visiting student at the University of California-Davis . His research focuses on making the web secure and private using system instrumentation, program analysis, machine learning, and internet measurement techniques. His research has had a real-world impact on the state-of-the-art privacy-enhancing tools, and it is incorporated by various web browsers, including Firefox and Brave. He is a recipient of Ada Louise Ballard and Seashore Dissertation Fellowship (2021), Graduate College Post-Comprehensive Research Fellowship (2020), and CSAW Best applied research paper award (2020).