



Department of Computer Science

A principled approach to privacy design

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Hosted by Shantanu Sharma

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Time: 2:30 PM – 3:30 PM

Location: GITC 4402 (4th Floor Seminar Lecture Hall)

WebEx Link: <https://njit.webex.com/njit/j.php?MTID=m52157a6d642b8a562defcc1af0bd7718>

<https://cs.njit.edu/seminars>

Abstract: Society is, now more than ever, aware of the privacy risks inherent to entrusting big tech companies with personal data. Privacy-focused technologies are booming, and even industry giants like Google and Apple have incorporated privacy into some of their products. However, privacy is hard to quantify and is usually at odds with utility. This means that, in practice, technologies advertised as privacy-friendly are likely to prioritize utility and will not provide meaningful guarantees of privacy.

My research focuses on developing robust analysis techniques to understand and improve the privacy guarantees of data-driven technologies. In this talk, I will present how I have used techniques inspired by statistical signal processing in different areas of privacy and security, focusing on anonymous communication systems and symmetric searchable encryption. With my talk, I will illustrate the versatility and effectiveness of following a statistical approach to study privacy enhancing technologies, and I will discuss future research lines and collaborations.



Bio: Simon Oya is a postdoctoral fellow at the University of Waterloo. He completed his PhD at the University of Vigo (Spain). Simon's research focuses on analyzing and designing privacy enhancing technologies using statistical analysis techniques. He has worked on different research areas such as anonymous communication systems, location privacy, searchable encryption, and machine learning, and his work has appeared in top-tier security venues such as ACM CCS, USENIX security, and ISOC NDSS.