



CITATION FOR ASSISTANT PROFESSOR PRATEEK SAXENA
YOUNG RESEARCHER AWARD

Assistant Professor Prateek Saxena is known internationally for his work in cybersecurity, both for its scholarly impact and practical adoption. His work advances both the theoretical foundations and practical techniques used in computer security, bridging the formal science and practised art in this field.

His team is credited for introducing the powerful class of “data-oriented attacks”, which defeat all control-flow defences proposed and deployed to date. His influential work on web sandboxing has shaped the design of several systems at Google and Dropbox, which are used by billions of users worldwide. His investigations into formal analysis methods have uncovered dozens of vulnerabilities in widely used web authentication protocols, such as those built on Facebook Connect and Microsoft LiveID. These strands of research have challenged long held assumptions about the strength of incumbent approaches to securing machine code, and about the inefficacy of formal analysis techniques in vulnerability discovery tasks. These works have sparked tremendous follow-on research in the field. His ongoing work investigates resiliency in distributed cryptocurrency networks and of security techniques powered by deep learning.

Prateek joined NUS in 2012 as a Dean's Chair Assistant Professor at NUS School of Computing. He has received numerous awards, including Top Innovators 10 under 35 in Asia by *MIT Technology Review* in 2017. His research work regularly features in top publication venues in computer security, namely ACM Communication and Computer Security, Usenix Security and the IEEE Symposium on Security and Privacy.

Prateek's research team has done much to strengthen the entrepreneurial spirit at NUS. His students have founded several start-ups from their research work, and Prateek himself has co-founded a cybersecurity venture that is growing swiftly.

This evening, we are pleased to honour Assistant Professor Prateek Saxena with the Young Researcher Award.