Instructor Wins Best Poster Award at Security and Privacy Conference (CODASPY’17)

CPT Michael Kranch’s and MAJ Andrew Reed’s paper, “Identifying HTTPS-Protected Netflix Videos in Real-Time,” won the Best Poster Award at the 7th ACM Conference on Data and Application Security and Privacy (CODASPY) in Scottsdale, Arizona last week. This paper highlights the importance of network traffic metadata by using the packet sizes, data that is not protected or altered by encryption, to identify video content. Their system can not only identify which video a user is watching from the library of 40,000+ Netflix videos but also the exact scene in the video with 99.5% accuracy within an average viewing of less than two and a half minutes. In addition to giving a talk on their work, all accepted papers were invited to give an optional poster presentation during the reception period Wednesday night. Representing the team, Michael was one of 15 presenters that took the opportunity to showcase his work. During the award ceremony, the poster chair stated that “this award should come as no shock to anyone that attended the poster reception” and that Michael was “the most enthusiastic poster presenter I have seen in the 7 years of this conference.” Michael and Andrew have been contacted by Netflix and, in addition to sharing their findings, have suggested several methods of mitigating this attack. They plan to continue their work with network metadata to determine if other traffic is susceptible to this type of fingerprinting technique.