



CAE Forum



Wednesday, March 2, 2022

Workload Modeling for Privacy and Attack Detection in Databases (1:00 - 1:50 pm EST)

Advertising Technology (AdTech) (2:00 – 2:50 pm EST)

Mark your calendar and come join us for CAE Forum! CAE Forum is a live, real-time, online, academic forum where members of the CAE community give non-technical presentations on topics of value to the CAE community. CAE Forum is about sharing your ideas, knowledge, and expertise to empower and strengthen our community. It's that simple. CAE Forum presentations are normally held on the third Wednesday of each month during the Fall and Spring semesters.

PRESENTATION #1

Title/Topic: Workload Modeling for Privacy and Attack Detection in Databases

Time: 1:00 - 1:50 pm EST

Location: <https://caecommunity.zoom.us/my/caeforum>

Just log in as "Guest" and enter your name. No password required.

Audience: Students, Professors, Govt.

Presenter(s): Gokhan Kul, Ph.D., University of Massachusetts Dartmouth

Description: Database systems have become an essential component of every data-intensive application. Both academia and industry invest in developing tools and methodologies to protect the privacy of the data stored while satisfying the performance requirements of these systems. We model database workloads to achieve both of these goals by exploiting the ever-evolving behavioral characteristics of users. In this talk, I will first present how traditional database workload modeling is ineffective in terms of performance and security when applied to mobile devices and how mobile databases can benefit from accurate workload modeling. Next, I will introduce a novel and lightweight data-leakage detection system on mobile databases. This system models the evolving behavior by comparing probability distributions of the query workload features over time and uses this model to determine if the incoming query activity is anomalous.

PRESENTATION #2

Title/Topic: Advertising Technology (AdTech)

Time: 2:00 - 2:50 pm EST

Location: <https://caecommunity.zoom.us/my/caeforum>

Just log in as "Guest" and enter your name. No password required.

Audience: Students, Professors, Govt.

Presenter(s): Dr. Babur Kohy, Northern Virginia Community College

Description: The discussion will be on what AdTech is and how it's used to track an entity movement using mobile devices. The talk will focus on ways AdTech is used to cheat personal privacy which could impact personal security. The discussion will conclude with recommendations to limit AdTech tracking. Real world examples based on research will be shared.

A recording of the live presentation will be available following the pre of the presentation at:

<https://www.caecommunity.org/resources/cae-forum-resources>

Contact us at: caeforum@caecommunity.org