Leaking Ad Data: Thesis Overview

Online Privacy:
The online ad ecosystem is stunningly complex. Broadly, ad exchanges do two things:

- Follow you around the web to learn about your preferences and
- Allow advertisers to target advertisements based on your characteristics

There are tons of cookies that work on behalf of companies like Google, Facebook, Amazon, Appnexus, Rubicon, etc., that track the websites you visit and build user profiles based on this information. When you visit a website, they allow potential advertisers to 'bid' on serving an ad to you based on your unique background.

My Thesis:
My thesis investigates this ecosystem. My central undertaking is an attempt to understand whether we can reconstruct user profiles from targeted advertisement data. This work has two main implications: first, it will hopefully help researchers in the space understand more about how and why ads are targeted in particular ways, and the depth of information typically used in customization. Second, it will illustrate potential security risks that could arise if third parties are able to observe targeted ads shown to users.

This Extension:
This extension is the final step of the above work. Having used a simulated orchestration approach to train profile reconstruction models, I'll be using your anonymized data to see whether my program is able to rebuild the ad profiles of real, live users.

After two weeks of use, you will be eligible for:

1. Entry into a lottery for one of five $40 Amazon/Airbnb gift cards. To enter, you must submit your email address via the original popup form
2. A personalized report on ways to improve your privacy footprint, drawn from conclusions reached in my thesis. To access this anonymized report, you will need to save the userid string that will appear in the popup form after two weeks

Remember – personal identifiers will be removed from the data collected and all data will be kept confidential. Your name and other personal details (ie. section 1 of the popup form) will not be sent to my servers, and email addresses for the lottery are stored in a separate table (and not linkable to your ads or responses). All data is encrypted at rest and will be deleted at the end of the study. This study has received IRB approval (#10183).

Note: If you're looking for installation instructions, find them on the thesis popup.