Final Take-Home Exam

(CSE 548 Advanced Computer Network Security)

Exam Duration: April 2 – April 18

Project Preparation:

1. The **first step** is to identify one network security-related topic from the Black Hat presentation archives.

* Goes to the Black Hat conference archives: <https://www.blackhat.com/html/archives.html>,
* Choose a live event (better to be a recent year, e.g., 2018-2020), on the left side bar, please check the briefings with network security and/or network defense and/or defense tags to filter network-related security solutions. Usually, a brief provides a PPT presentation and/or a white paper.

1. The **second step** is to review interesting network security related topics (this step will need you to read and go over many materials)

* After reviewing many presentations/solutions, you need to identify one topic that you want to work

Requirements:

1. This take-home exam needs to be done individually. No collaborations are allowed between students.
2. You can choose one or both approaches:
   1. **Implement the presented solution**. You can choose any programming language to implement the solution if the solution is program-focused; you can establish the sytem presented in the solution if the solution focuses on a computer networking system-based demonstration; or the solution involves both described so far.
   2. **Assess the presented solution**. You can evaluate the chosen solution if the solution is already available (programs or systems). You want to design and development a comprehensive assessment plan to present its performance from both usability and security perspectives.
3. Deliverables
4. (70%) A project report by using the given project report template (minimal 6 pages) to detail your conducted solution
5. (30%) A short video demo of your work (up to 10 minutes) to demo your programs and/or system as a walk through of your solution.

Hints:

1. The evaluation will base on the completeness of your presented solution. Emulated/simulated solutions are viable if the actual system/software implementation is not possible.
2. In addition to the documents/ppt provided on Black Hat website, additional materials may be provided in the public domain. Please consider using the research approaches used for your assignments and group project to seek help and additional resource for your take-home exam.