GS Final Project Guidelines

(For Graduate Students only)

This will be the final project for the course. It is worth 40% of your grade and is due December 10th, 2024 at 3:00 PM EST. Graduates and Undergraduates will have different projects. The guidelines for each project are described in detail in this document. Please review the guidelines carefully and let us know if you have any questions. You can contact us via Canvas or can come in during TA office hours.

- Each graduate student needs to select a topic from the list linked here by writing the full name in the student name column. Topics are distributed on a first-come first-served basis.
- The deadline for the topic selection is October 22nd, 2024, and no changes will be allowed after the deadline (unless under special circumstances that will be evaluated case by case).
- The Final Project submission on Canvas will open on November 26th, 2024, and will remain open until December 10th, 2024, at 3 PM EST. After the assignment closes, no submission will be accepted.
- Graduate students need to write a short review paper based on the topic they have selected. For graduates, the use of Latex is encouraged, but not mandatory. However, you still need to follow the format of the review paper which can be found here: Review Paper Format.
- If you decide to use Microsoft Word or Google doc, please adhere to the following details:
 - 10-point Times Roman or similar type on 12-point leading (single-spaced)
 - Two-column format.
 - U.S. letter-sized pages.
 - The references should be numbered consecutively within brackets [1] (please see the template format for examples).
- The document submitted must be in the **PDF form**. Evaluation will be done based on the submitted document. You are responsible for the correct submission. If the file is unreadable or not related to the project, you will get **0** in the final project grade.
- Review papers synthesize and analyze research already conducted to extrapolate new research directions. The main and fundamental purpose of writing a review is to create a readable synthesis of the best resources available in the literature on a current

area of research to identify what has not been explored yet. The review paper should analyze at least 10 recent academic research papers on the selected topic. The selected papers should not include other review/SoK papers or background papers on the topic.

- The review paper should **not** be more than **6 pages** (**excluding references**). Also, the document should not have more than 2 figures/tables from the papers. You can create figures and tables on your own but the document should contain in any case a maximum of 2 figures/tables.
 - Every figure/table should have an appropriate caption. Figures should be clear and with sufficient resolution. The figures can also be used to show a table or a mathematical formula if needed.
 - Figures/tables from external sources (e.g., Google images) are not allowed. The
 document should contain a maximum number of 2 figures//tables (it may also
 contain no figures/tables).
 - Figures and table dimensions should not take more than half a page.
- There **is no makeup** for the missed final project. If you did not submit the assignment you will get **0 in the final project**. This is where you can lose the points:
 - Wordy or repetitive writing
 - Incomplete parts
 - Copy content/plagiarism
 - Unclear descriptions and explanations in the paper.
 - Spelling and grammar errors
 - The review only summarizes the content of the papers rather than analyzes them.
 - Confusing layout, unclear content
 - Make uncorrelated statements/claims not related to the chosen topic
 - Missing content
 - The topic is not related to security
 - The submitted document should contain the following content sections and subsections:
- The submitted document should contain the following content sections:

Paper title

Full name of the student

Abstract

- Section 1: Introduction
- Section 2: Background
- Section 3: Categorization and Criteria
- Section 4: Analysis
- Section 5: New research directions

Tips for writing a good review article

- 1. **Define your question:** Take your time to identify the research question and carefully articulate the topic of your review paper. A good review should also add something new to the field in terms of a hypothesis, inference, or conclusion. A carefully defined scientific question will give you more clarity in determining the novelty of your inferences.
- Identify credible sources: Identify relevant as well as credible studies that you can base your review on, with the help of search engines (e.g., Google Scholar). Please do not use sources such as Wikipedia, white papers, peer-reviewed works, Chatgpt, etc. Questionable/fake/vague/copied content is easily recognizable and it will result in point deductions.
- 3. **Categorization:** the selected sources should be separated and classified following a criteria. You should identify such criteria and explicitly write them down.
- 4. **Describe the aim of the review in the abstract and introduction:** A good starting point is explicitly writing down what your review aims to address in the field.
- 5. **Be unbiased and critical:** Evaluate every selected paper in a critical but unbiased manner. This will help you present a proper assessment and a critical discussion in your article.
- 6. **Include a good summary of potential future research directions:** End by stating the take-home message and identify the limitations of existing studies that need to be addressed through future research.
- 7. **Review Example:** here you can find an example of a review paper on a specific topic. Note that the example covers more papers than what is necessary for this final project.