

**Gabriella Zaken (PantherID: 6256209), Spring 2024 CIS 4930, Credits: 1**  
**Instructor: Professor Selcuk Uluagac, <https://users.cs.fiu.edu/~suluagac/>**

**Title for the study of the special topic for Gabriella Zaken, Spring 2024:**  
The Effect of Zero-Permission Sensors of Virtual Reality Devices on User's Privacy

**List of objectives with specific deliverables:**

- The student will help collect data to increase the accuracy of the Machine Learning algorithms designed to derive sensitive information about the user from the accelerometer data.
- The student will learn to examine the literature to perform feature extraction to progress the model.
- The student will help conduct a literature analysis to find methods to mitigate the effect of body movement and live-speech-induced vibrations on sensor readings. For instance, the student may utilize low-pass/ band-pass or high-pass filters.
- The student will contribute to the discussion of possible future research ideas, improving on the current attack surface.
- The student will help during the data collection and create custom audio files using open-source Generative-AI tools and software.

**Method of student performance evaluation:**

- Weekly progress updates
- Attending meetings

**Planned meeting schedule with the mentor:**

The student will come to the lab during the weekdays to complete her list of objectives:

Tuesday/Thursday: 3:30 PM-6:00 PM and Friday: 11:00 AM-3:30 PM

For each week, the student will hold two different meetings:

- Tuesdays: 10:30 AM- 11:30 AM the student will meet with the mentor and the graduate student she will collaborate with
- Fridays: 11:00 AM- 12:00 PM