

Minutes of Meeting 3/19/2025

Project Name: CYBER1-CodeVersion

Client Name: Tashi Stirewalt

Date: March 19, 2025

Time: 3:30PM - 4:30PM

Location: Microsoft Teams

Attendees: Tashi Stirewalt, Bryan Frederickson, Samantha Brewer

Client Representative: Tashi Stirewalt

Project Team Members: Bryan Frederickson, Samantha Brewer

1. Agenda

Go over final polishing steps for the project. Begin planning for publishing research.

2. Meeting Summary

Introduction:

Bryan Frederickson and Samantha Brewer are seniors at WSU serving as developers for Tashi Stirewalt for the CYBER1-CodeVersion project.

This project is meant to help signature-based intrusion detection by being able to generate semantic copies of known code, to better identify malicious software that has been changed to avoid detection.

Client's Requirements:

Renamed variables and functions should have a naming convention decided per clone for more ambiguity. Begin working on finding a piece of malicious code that is detected by an antivirus but, when run through the Obfuscator and converted to executables, at least one clone makes it through undetected.

Key Discussion Points:

Discussion Point 1: Assefaw Gebremedhin joined, brought up Military Cyber Affairs to have our research published as a paper.

Discussion Point 2: Test outputs against commonly used programs for defending as evaluation (bitlocker, windows defender, etc)

Discussion Point 3: Tashi would prefer to be primary author for the paper, me and Bryan will be secondary authors. Look into both styles, stylometry for the translation, and the logic obfuscation for compiled binaries since the translation is lost. Dynamic analysis signature might be unchanged but static analysis signature might be changed, lean into that.

Decisions Made:

Team focuses on the capstone and finishing the class project, while Tashi focuses on the paper.

Setup pipeline so python files can be converted to binary executables (Nuitka?).

Action Items:

Action Item 1: Find malicious code that is undetected when cloned/obfuscated - Due by 4/2/2025

Action Item 2: Implement pipeline to convert clone .py files to contained executables - Due by 4/2/2020

3. Project Milestones Discussed

Paper first draft due by April 9, 2025

Project deliverables due April 10, 2025

4. Next Steps

Finish project app and work on class deliverables e.g. videos

Complete Action items

5. Next Meeting

Date: April 26, 2025

Time: 3:30PM - 4:30PM

Location: Microsoft Teams