Minutes of Meeting 10/24/2024

Project Name: CYBER1-CodeVersion
Client Name: Tashi Stirewalt
Date: Oct 24, 2024
Time: 5:00 PM - 5:40PM
Location: Microsoft Teams
Attendees: Tashi Stirewalt, Bryan Frederickson, Samantha Brewer

Client Representative: Tashi Stirewalt
Project Team Members: Bryan Frederickson, Samantha Brewer

1. Agenda

Discuss start of development and specific libraries to focus on, as well as tips on how to traverse CSTs.

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:
Client wants a simple algorithm for first implementation, nothing too involved that could delay a
prototype like using machine learning compared to a simpler predefined probability selection for
how to manipulate tree nodes.

Key Discussion Points:
Discussion Point 1: CST and AST traversal
Discussion Point 2: Markov Chains and how to potentially implement
Discussion Point 3: Any potential limit to the 'N' upper bound on permutations.
Discussion Point 4: Started brainstorming some ideas for second semester alternate implementations. One
method was evolutionary generation, where it would be building on output code to create more
and more different code.

Decisions Made:
Prioritize CSTs over ASTs, as CSTs build on the functionality of ASTs
Markov Chains can be implemented

Action Items:
Action Item 1: Learn to walk through CST, when something is encountered, define a process for how to
change the node with probabilistic decision-making.

3. Project Milestones Discussed

Try to have more CSTs familiarity with traversal for next meeting on Thursday, Oct 31, 2024

4. Next Steps

See Action Item 1, work more on implementing algorithm

5. Next Meeting

Date: Thursday, Oct 31, 2024
Time: 5:00 PM
Location: Microsoft Teams