

Name: Nathan Bellew

Hours worked this week: 37

Kompyuter M3cHakrs

Week of (Date):

6/7/2019

Team Members Active this Week:

Shinosuke Kajiware

Melanie Growley

Keren Angeles

Nathan Bellew

Weekly Update of Project/Research (Summarized by Team Lead):

Main Projects: Husqavarna Hack, Meccano Robot Hack.

Sub Projects: Capture the Flag: Janos, Hackertest.

Main Goal: Buffer Overflow

Each student worker has slowly come to the understanding of how the Buffer Overflow works, and will continue to learn throughout the next week through examples.

We have used sources from Hacking the Art of Exploitation, which has given us some sample problems to create Buffer Overflows with.

Please explain in detail what you worked on this week.

In order to crack a company machine we need to first understand how to hack simple programs, our sub projects will help launch us to our ultimate goal. So far this week we discussed the many ways Buffer Overflow is used to break into systems and how we can create them. The Buffer Overflow is one of the highlights of the Janos CTF, and so it would be nearly impossible to complete it without covering it. By the end of the week we should have a few positive tests to show how buffer overflow exists.

What are the outcomes of your research and time for the week?

Each student worker now has a base understanding of the memory stored in the HEAP and STACK of a computer, and how if used incorrectly, can cause severe security problems in the computer.

Please describe any roadblocks or difficulties you experienced in your research this week.

As always our biggest roadblock continues to be the lack of computer knowledge and the difference of Operating system. This roadblock is not easily fixed with something like a virtual machine, due to the network setup, even with a virtual machine, we are still unable to create proper work. We found a few work arounds with the Windows Subsystem for Linux, but it is still far from perfect. As each day passes it does appear that the growth in knowledge is slow building.

What are your next steps moving forward?

Currently the methods for teaching the new student workers the hacking techniques, is a lecture method with examples. Assignments may need to be assigned during the last hours of work to ensure they are maintaining the lesson of each day.