
KompyuterM3chakrs

Week of (Date): July 12, 2019, Friday

Team Members Active this Week: Nathan Bellew, Keren Angeles, Melanie Grumley

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

Due to the inability to continue the Reverse Engineering project, we have been re-assigned to working with Tensorflow, FastAI, and PyTorch in new Malicious URL Detection project.

Name: Nathan Bellew

Hours worked this week:

Please explain in detail what you worked on this week.

Installed and setup experiments to be worked on with Tensorflow-Keras for the Malicious URL project.

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

All Experiments are successful with no bugs.

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

We essentially had to learn about the basics of Tensorflow-Keras in about 3 days to get a working model.

What are your next steps moving forward?

Increase the number of tests, so that training can be more precise for the Tensorflow-Keras, we need to update the README.md on the github as well as make the experiments more readable. Following this we will start working on the PyTorch equivalent for the Malicious URL project.

Name: Melanie Grumley

Hours worked this week: 27.5

Please explain in detail what you worked on this week.

I continued learning networking and began learning about Keras Tensorflow in order to understand a side project that Dr. Basnet asked my team to work on.

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

In learning certain portions of machine learning and data science, I hope to be able to understand and participate in Dr. Basnet's project which uses machine learning to filter out malicious URLs from benign URLs.

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

I find myself extraordinarily behind my peers this time as far as knowing what's going on but I'm catching up slowly.

What are your next steps moving forward?

Continue learning about Keras, Tensorflow, and machine learning.

Name: Keren Angeles

Hours worked this week: 28.5 hrs

Please explain in detail what you worked on this week.

This week I learned about Machine Learning as a side project for Dr. Basnet

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

During this self study I learned about Machine Learning, Tensorflow and how to train machine in recognizing malicious URLs

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

There are some concepts that are very difficult to understand about machine learning. I was able to get jupyter notebook working on my computer and now trying to incorporate Google Colab with it.

What are your next steps moving forward?

Moving forward, now I have to attempt to replicate an experiment using either Tensorflow, Keras, or Theano.