

CAE Research Project Meeting Minutes

10/21/2021

- Participants
 - o Dr. Waleed Farag (PI)
 - o Dr. Soundararajan Ezekiel (Co-PI)
 - o Dr. Xinwen Wu
 - o Maria Balega
 - o Zaryn Good
 - o Franklin May
 - o Cassie Lefever
 - o Ryan Gress
 - o Sky Semone
- Meeting started at 4:00 p.m.
- Unanimously approved minutes for meeting on October 14, 2021
- Main Points
 - o Discussed:
 - Maria & Cassie
 - Working on writing report, created a graph and tables of results
 - Working to even out the distribution of anomalies using 75% benign and 25% malicious for IoT23 dataset, SVM accuracy went down
 - Zaryn & Sky
 - Ran IoT23 captures through VGG-19 using binary classification, achieved validation accuracy up to 98-99%
 - Working on training data using ResNet-101
 - Franklin
 - Compared CPU time with TCNJ and Titan, Titan was faster
 - Rewrote KDD preprocessing, currently running SVM
 - Ryan
 - Combined TON-IoT captures together similar to published paper and ran through XGBoost, achieved up to 94% accuracy
 - o Tasks:
 - Maria & Cassie
 - Continue working on writing report and evening out the distribution of anomalies
 - Alicia & Eliot
 - Look into comparing SVM, XGBoost, etc. with classical methods
 - Zaryn & Sky
 - Continue working with VGG-19 and ResNet-101, try using TCNJ machine to see if performance improves
 - Franklin
 - Run a few more scripts in TCNJ and Titan to compare CPU time
 - Continue running SVM

- Ryan
 - Work on running each capture and the combined TON-IoT dataset in XGBoost using multiclassification
- Adjournment at 5:00 p.m.
- Next meeting will be held on Thursday October 28 at 3:00 p.m.