CAE Research Project Meeting Minutes

1/26/2022

- Participants
    - o Dr. Waleed Farag (PI)
    - o Dr. Soundararajan Ezekiel (Co-PI)
    - o Dr. Xin-Wen Wu
    - o Zaryn Good
    - o Ryan Gress
    - o Alicia Deak
    - o Maria Balega
    - o Franklin May
- Meeting started at 11:30 am.
- Unanimously approved minutes for meeting on January 19, 2022
- Main Points
    - o Discussed:
        - ▪ ALL
            - Use the same machine for each dataset so that execution time is comparable
            - Share results before meetings so feedback can be provided
            - Division of three different IEEE papers
                - o Alicia and Maria: XGBoost and IoT23 with comparison to SVM/DCNN
                - o Ryan: TON-IoT with comparison to different algorithms
                - o Franklin: KDD dataset with comparison to different algorithms
            - Share incremental progress of papers
        - ▪ Maria
            - Ran IoT23 samples through SVM, achieved accuracy up to 96%
        - ▪ Alicia
            - Sent dataset to Zaryn, working on running IoT23 in XGBoost
        - ▪ Zaryn
            - Converted both ToN-IoT and IoT23 data into images, running through DCNN, IoT23 accuracy up to 86%, issue with ToN-IoT getting the same accuracy every time
        - ▪ Franklin
            - Working on writeup for KDD
        - ▪ Ryan
            - Changed preprocessing for ToN-IoT to fix the issue of getting the same result, accuracies up to 95% for XGBoost and SVM, getting false negatives with metrics
    - o Tasks:
        - ▪ Maria
            - Continue running IoT23 20% sample through SVM, work on report
        - ▪ Alicia

- Continue running IoT23 in XGBoost, use TCNJ machine
  - Zaryn
    - Continue running DCNN for ToN-IoT and IoT23, work with others to see how DCNN will be incorporated in papers
  - Franklin
    - Continue writeup for KDD, reach out to Alicia and Zaryn to discuss paper
  - Ryan
    - Send new preprocessing for ToN-IoT to Zaryn
    - Run NB to compare results with other algorithms/published paper
- Adjournment at 12:40 pm.
- Next meeting will be held on Wednesday February 2 at 11:30 am.