

# CAE Research Project Meeting Minutes

1-5-2023

- Participants
  - Dr. Farag (PI)
  - Dr. S. Ezekiel
  - Dr. Wu
  - Drew Rado
  - Emily Himes
  - Maria Balega
  - Sky Semone
  - Zaryn Good
- Meeting started at 2:00 pm
- Unanimously approved minutes for meeting on December 22th, 2022

## Main Points:

- **Progress report**
  - Maria run the 2-malicious+benign dataset and got 99.25 classification accuracy for SVM and the XGBoost had 99.84.
    - Maria also worked on paper.
  - Zaryn is converting new data for processing in DCNN in Matlab.
  - Drew's update:
    - Worked on collecting data most of the break
    - Also has 4 pages of content for the paper.
    - Bot attack script did not work and its questionable whether any more powerful script would mess with IUP's network
  - Sky presented frequency data showing that while our dataset has lots of repeated data, so does the original IoT23 dataset.
- **Discussion points**
  - Dr. Ezekiel noted that the ML results from Maria are unusually high accuracy for the SVM. We should look into who this is... it was in the 80-percentile for the iot-23 dataset.
  - Drew wondered if the two classifications of malicious data was enough since the botnet attack is not looking promising.
  - Simple dataset:
    - Drew suggested adding actual sensors
    - He will try connecting some personal devices to see how they influence data
    - Dr. Farag and Ezekiel mentioned that we do not have much time to make these changes, but if it works it should be included
  - Documentation:
    - Emily and Drew have been working on it
    - Others should join in data visualization
- **Tasks:**
  - Drew: continue collecting malicious data and investigate connecting other devices
  - Sky: Help Drew if needed and analyze new data, Work on stats/data viz codes if time permits
  - Zaryn and Maria: work on paper, run new data once Drew gets it.
  - Emily: continue working on documentation and OneDrive organization.
  - Adjournment at 2:40

Next meeting will be held on Thursday, Jan 11<sup>th</sup> at 11:10AM