CAE Research Project Meeting Minutes
2/25/2021

- Participants
  - Dr. Waleed Farag (PI)
  - Dr. Soundararajan Ezekiel (Co-PI)
  - Dr. Xin-Wen Wu (Co-PI)
  - Ethan Buhl
  - Cassandra Lefever
  - Alex Robbins

- Meeting starts at 4:00 p.m.
- Unanimously approved minutes for meeting on February 18, 2021
- Main Points
  - Updates:
    - Alex –
      - Datasets – cleaned normal data, attack data is in the process of being cleaned
      - Autoencoder Script – copied the script into new file and removed excess, getting an error when trying to run it
    - Ethan –
      - RANSACs – found documentation on RANSAC and some frameworks for us to use in the future, found Python libraries on GitHub
    - Cassie –
      - Peak Finding Algorithms, worked with Dr. Ezekiel to discuss this and a wavelet program we have to work with
  - Tasks:
    - Alex –
      - Work on parallel processing with the GPUs in MATLAB to speed up the data cleaning process
      - Work with Adam and/or Jackson to troubleshoot the autoencoder
      - Send finalized SPIE paper to Dr. Farag, Dr. Wu, and Dr. Ezekiel for final approval and submission
    - Ethan –
      - Continue to explore RANSAC – start running some of the libraries that were found on RANSAC to get some initial results; compare them, keep track of datasets used, data sizes, values, results in tables
      - Start developing a means to compare RANSAC to the other algorithms
      - Dr. Wu will share a document with explanations of some algorithms to help out
    - Cassie –
      - Continue to work on peak finding and the wavelets program

- Adjournment at 4:55 p.m.
- Next meeting will be held on Thursday, March 4, 2021 at 4:30 p.m. via Dr. Farag Zoom room.