# CAE Research Project Meeting Minutes
## 06-28-2023

- Participants
    - Dr. Soundarajan Ezekiel
    - Dr. Xinwen Wu
    - Jared Giesen
    - Kurtis Johnson
    - Samuel Rocco
    - Nathan Metzger
- Meeting started at 11:30 am
- Unanimously approved minutes for meeting on June 18th, 2023

**Main Points:**
- **Progress report**
    - Drew –
        - Working on IoT test bed paper
    - Kurtis –
        - Helped Maria with IEEE Access paper
            - Ran XGBoost and SVM on KDD, TON, and IoT23 data sets on Titan for efficiency comparison
        - Ran XGBoost on five datasets testing different parameters on 4080 machine
            - Tested train/test splits, max_depth, and eta (learning rate)
        - Ran SVM on five datasets testing different parameters on 4080 machine
            - Tested train/test splits, C, gamma, and different kernels
    - Sam –
        - Ran TON, KDD, and data captures through tSNE for visualization
    - Jared –
        - Working on getting remote connection into 305 machines
        - Learning DCNN and Matlab from Zaryn's tutorial
    - Nathan –
        - Visualized data sets with k means clustering and PCA
- **Discussion points**
    - Finish up respective tasks testing parameters of algorithms and visualizations on all data sets
    - Everyone needs to focus on DCNN to quickly preprocess and train all networks on all data sets
- **Tasks:**
    - Everyone: Learn DCNN by reviewing Zaryn's tutorial
    - Drew: Finalize the IoT paper
    - Kurtis:
        - Finish running SVM on datasets
        - Run XGBoost and SVM on IoT23 dataset
    - Sam:
        - Run tSNE on the three data sets in Maria's paper
    - Jared:
        - Set up remote connection to 305 machines
    - Nathan:
        - Reconfigure PCA data visualization

Adjournment at 12:00 pm
Next meeting will be held on Wednesday, July 5th at 11:00am