

CAE Research Project Meeting Minutes

6/2/2021

- Participants
 - Dr. Waleed Farag (PI)
 - Dr. Soundararajan Ezekiel (Co-PI)
 - Dr. Xin-Wen Wu (Co-PI)
 - Cassandra Lefever
 - Maria Balega
 - Alicia Deak
 - Malcolm Holden
 - Alex Robbins
- Meeting started at 5:00 p.m.
- Unanimously approved minutes for meeting on May 26, 2021
- Main Points
 - Discussed:
 - Maria - Update on XGBoost algorithm
 - Worked with Dr. Ezekiel and Dr. Pearlstein on normalizing the data
 - Started with 200 lines of the data
 - Ran data through code, code ran and got an initial accuracy of 100%, but our testing is not ideal as the training and testing data overlap
 - Malcolm –
 - Working with Alicia, reading her notes, and learning MatLab
 - Alicia – SVM, one-hot encoding, cyclic learning
 - Working on converting our data into images to fit into DCNN
 - Working on satellite datasets, trying to get permission to access another dataset used by the Air Force
 - Shared PowerPoint slides summarizing current work with Starlink data and novelty detection
 - Tasks:
 - Maria –
 - Work with Alicia to run more of the dataset through the XGBoost Algorithm
 - Work on setting the parameters of the XGBoost algorithm
 - Dr. Ezekiel will email a PowerPoint presentation to the students explaining XGBoost in more detail
 - Alicia will train Maria on running the SVM on our dataset
 - Alex –
 - Search for a more traditional DNN for MatLab to use instead
 - Meet with Dr. Ezekiel and Dr. Pearlstein to discuss this
 - Sort and document files created on the Titan
 - Alicia, Jackson, Adam, and Alex will continue to work with DCNN

- One-hot encode the data -> convert to images -> run it through the DCNN
 - We want Adam to help us find his original DCNN code on the Titan
 - Cassie -
 - Sort and document files created on the Titan
 - Malcom –
 - Continue working with Alicia on MatLab, SVM
- Adjournment at 6:10 p.m.
- Next meeting will be held on Monday June 7th at 5 p.m. via Dr. Farag's Zoom room