

EE/CprE/SE 492 BI-WEEKLY REPORT 2

2/8/21 – 2/22/21

Group number: 24

Project title: AI-VVO: Cloud-based Machine Learning for VOLT-VAR Control and Optimization

Client / Advisor: Gelli Ravikumar

Team Members - Role:

- **Abdul-Salem Adedoja - Frontend Development**
- **Ian Kegley - Frontend Development**
- **Jacob Gleason - Frontend Development**
- **Rene Chavez - Backend Development**
- **Tyler Norris - Backend Development**

○ **Weekly Summary**

- This week we were finalizing the creation and implementation of the multiple Docker containers for the various frameworks we will be using in our project. We also were working on creating the groundwork for both the backend and frontend to help us start the main implementation of the project. This was the main objective for the week.

○ **Past Week Accomplishments**

- Abdul-Salam: Configured docker and tested docker container. Continued improving my understanding of technology required for the project.
- Ian: Created docker-compose and React Dockerfile, tested docker container, created postgres database
- Jacob: Worked on creating the Django Docker file that contains the required information to run the Django image for our project. I attended our weekly meeting on Wednesday to discuss what has been done and to game-plan this upcoming week. This week I also continued to research the technologies for the project and how to deploy some of the different frameworks we will utilize using Docker.
- Rene: Worked on creating a Tensorflow Docker image for our project. This image is mainly needed for our Machine Learning environment where we will be developing in.
- Tyler: Created small test programs to utilize and checked out the software.

○ **Pending Issues**

- Abdul-Salam: No current Issues
- Ian: While the docker container builds and runs mostly as expected, static files for the django admin panel are being blocked, this panel is necessary and useful keeping track of users, models, etc.
- Jacob: No current complications other than still having to fully familiarize myself with the foundation that is needed to get our project off the ground
- Rene: I haven't ran into issues yet but I will say the boundary of not understanding Docker fully did complicate things. Just trying to continue working and understanding the material necessary for the project.
- Tyler: No current issues

○ **Individual Contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Abdul-Salam	Docker testing, React practice	3	6
Ian	Docker-compose creation and testing, postgres set-up	10	14
Jacob	Django docker file, development set-up	4	7
Rene	TensorFlow Docker imaging creation	4	7
Tyler	Angular testing outside of Git	3	6

○ **Plans for the Upcoming Week**

- Abdul-Salam: Discuss with Professor Gelli regarding the implementation for the AI algorithm and understanding the load management equation
- Ian: Resolve docker container issue, then work on building up basic user interface
- Jacob: Finish the final changes needed to get the docker containers up and running and then work on finalizing the frontend groundwork
- Rene: Resolve docker issues concerning my part of the project. To ensure Docker image is correct and efficient
- Tyler: