EE/CprE/SE 491 WEEKLY REPORT 8

Mar 27 - Apr 2

Group number: **20**

Project title: **GridGPT**

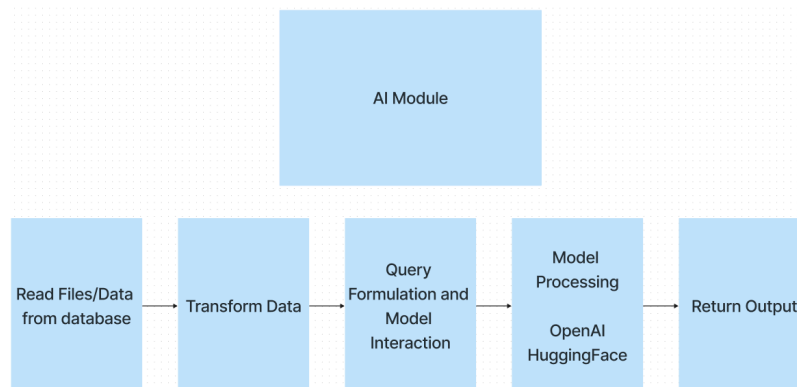*Client &/Advisor:* **Gelli Ravikumar**

Team Members/Role:

- **Tin Ngo -> AI Integration Specialist**
- **Jackson Phillips -> AI Integration Specialist**
- **Emma Heithoff -> Power Systems Specialist**
- **Eddy Andrade -> Frontend Lead**
- **Nick Doty -> Backend Lead**

o **Weekly Summary**

- We presented a lightning talk on our current design progress, concerns, functionality, and technology considerations. Students gave insight on our current design considerations for the grid application of Artificial Intelligence and Professors gave insight on our presentation soft skills for our final product.

o **Past week accomplishments**

- Tin Ngo: This week, I created block diagrams of the architecture of what I will be implementing. It will be a module that will be attached to the current infrastructure. I want to make it so that it can easily switch between the Hugging Face AI model and the OpenAI AI model. I also worked on a lot of planning for future development in the form of actionable items in a Gantt chart.

- Jackson Phillips: This week I spent more time learning about dataset generation and how models use them to train. I also looked deeper into how openai handles our data.
- Emma Heithoff: I spent time updating Nick on my training dataset generation plan. I understood our current state in the design process with the lightning talk and design document 4 assignment; I have ideas on how to schedule milestones for the end of the semester to fuse our progress into a proof of concept.
- Eddy Andrade: this past week, we met with our client where I discussed the information that I had gathered based on Google's Colab and GitHub's Copilot implementation of their AI models. I began sketching an improved version of the previous sketch that I had made. This time, it follows the similar characteristics of both Colab and Copilot.
- Nick Doty: This week I have decided to switch from working on Backend to working on helping Emma with training the dataset as well as automating it. I have been asking her questions about DSS files to get myself more familiarized as well as going through a tutorial to get hands on experience with OpenDSS and its software.

o **Pending issues**

- Tin Ngo: Need access to OpenAI
- Jackson Phillips: Need OpenAI access.
- Emma Heithoff: Reviewing the rest of project details from my absences is my only issue. I have the resources to generate a dataset with time over the next week.
- Eddy Andrade: Need VM access to be able to run the code and be able to access the .tsx files of the project.
- Nick Doty: N/A

o **Individual contributions**

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Tin Ngo	Gantt chart planning	12	60
Jackson Phillips	Dataset and OpenAI research	6	48
Emma Heithoff	Dataset Generation with Python package	6	40
Eddy Andrade	Sketching & Viewing project repository	6	48
Nick Doty	Starting DSS role	6	48

- o **Plans for the upcoming week**
  - Tin Ngo: Plan on starting our AI models' proof of concept implementation. I will start coding and playing around with OpenAI.
  - Jackson Phillips: Get hands on with OpenAI when we get access to the API.
  - Emma Heithoff: Generating the dataset and providing documentation to the group to understand DSS implementation so they have support for their AI and frontend roles. Clearing questions I have from absence by listing all and sending to applicable members of the group.
  - Eddy Andrade: hopefully, we can have our own VMs cloned. That way, I am able to run the project and view the UI again. This will help me get a better understanding of what is going on in the .tsx files.
  - Nick Doty: this week I will continue to focus on looking at DSS and asking Emma questions