

EE/CprE/SE 492 GROUP PROGRESS REPORT

Group number: sdmay22-19

Project title: Underground Cable Packing Web Tool

Client: Professor Mathew Wymore, EPRC, Alliant Energy

Advisor: Professor Mathew Wymore

Team Members: Name - Leadership Position (below)

Alexander Young - DevOps and System Engineer

Brevin Wapp - Scrum Master

Haadi Majeed - Quality Assurance Engineer

Matthew Hoskins - Team Lead

Nate Tucker - Tech. Lead

Tom Sun - User Experience and Requirements

Quinten Sorice - Client Point of Contact

o Project Summary:

This project's goal is to develop a web tool/site that will function similar to the executable software the project is based on while adding new features and improved primary functionality such as: enhanced algorithm, mobile support, and ease of use. This web tool will also allow for more readily available functionality being an application available on EPRC's website for immediate use while being hosted on Iowa State University's servers. To this, the direction or scope of this project has not undergone any change from original ideation and planning.

o Accomplishments

The team as a whole has continued weekly meetings with individual meetings between collaborating members (i.e. those working on the communication together, those working on the algorithm together, etc.) have other meetings focused on work rather than administrative and whole project infrastructure/technical issues. The team has continued software development progress on the team gitlab issue boards.

Individual work: (Team member - Description/list of work, when/week)

- Alexander Young - Aided in database setup and related infrastructure design ensuring that it will work well with the other aspects of the project's software (frontend and backend), (weeks 5-6). Testing out procedure for automated software testing and deployment process, (week 6).
- Brevin Wapp - Further developed the planned out infrastructure related to the database and its subsequent relation to the rest of the project including going over functionality and design with the rest of the team to ensure a redesign/rework will not be needed, (weeks 5-6). Provided assistance in the code development of some of the basic functionality on the frontend to speed up some of the development ahead of early functionality tests.
- Haadi Majeed - Worked on the development, coding, and testing of the math involved with the algorithm process for initial demonstrations, (weeks 4-6). Worked on ideation of

the design and structure of the algorithm on the code side in order to have a basic functionality to present with client and prospective user in the coming future, (week 6).

- Matthew Hoskins - Further development of the backend communication in conjunction with Nate Tucker (representing the frontend aspect of the communication) with the focus of ensuring base functionality ahead of mid-progress demo, (week 6). Coding and testing the math that will be used by the algorithm, and coding the early version of the algorithm for mid-progress demo with as many tests as possible, (week 4-6).
- Nate Tucker - Managing the transfer/communication (between the frontend and backend) in order to be at a base functionality ahead of base demo. And the technology/logistics that will go into the subsequent storing of data involved in the software development, (week 4-6). Researched and worked on the visual rendering of data results for displaying on the frontend, (week 6).
- Tom Sun - Learning the React frontend development process, researched and implemented related libraries and frameworks that will work well with the project that there was good documentation and team experience in, (week 4-5). Worked on a basic frontend that will be usable in an early project demonstration, (week 6).
- Quinten Sorice - Researched algorithm designs to derive a functional iteration for first demonstrations, and met with teammates to discuss findings and algorithm design choices (weeks 4-6). Learning Go syntax for eventual conversion of algorithm from math into code (weeks 4-6).

o **Pending issues**

At this time there are not any pending issues for any aspect of the project, and the team is just progressing with the expected development work.

o **Advisor Input/Signature:**

Please select one of the options below and sign.

I am pleased with the progress the team is making.

The team's progress could use some minor improvements which I will discuss with them.

The team's progress has some major concerns that I will discuss directly with Dr. Bigelow (bigelow@iastate.edu , 515-294-4177)

Signature:

o **Client Input/Signature:**

Please select one of the options below and sign.

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