Company Background:

PS Technology (PST) is a leading provider of software solutions for the transportation industry, with headquarters in Louisville, Colorado. Since our founding in 1985 as a corporation from the Denver Rio Grande Western railroad, we have been committed to providing innovative and reliable technology solutions that help our customers improve their operations and increase their efficiency. In the years following, PST became a fully owned subsidiary of the Union Pacific Railroad and has grown to a solution market leader in the North American freight rail environment.

Our team of experts has extensive experience in transportation management and logistics, and we leverage this expertise to develop solutions that meet the specific needs of our customers. Our software offerings include a range of products for managing transportation operations, including dispatching, crew management, simulation, tracking, training, and asset management.

We are dedicated to providing excellent customer service and support, and we work closely with our customers to ensure that they get the most out of our software solutions.

Project Description:

PS Technology develops training software used by railroads across North America as well as internationally. Combined, railroads in North America are responsible for training over 100,000 railroad employees. For organizing that training large railroads use a Learning Management System (LMS).

An LMS allows training content or courses to be created in many different ways. One method is using a SCORM (Shareable Content Object Reference Model) package, which is an industry standard format in the learning technology industry. There is existing software for creating training content (i.e. Adobe Captivate) but these tools are limited in the interactivity which they can provide for training courses. In this project the project team will create a new interactive training courses for teaching railroad operating rules and procedures.

This training course is for employees identifying signal indications and what they mean. The railroad uses signals very similar to traffic signals used on regular roads, except instead of one signal head with 3 colors and 3 meanings there can be up to 3 different signal heads, each with 4 different colors, and used in various combinations for 20+ different meanings. For example, a yellow light above a red flashing light is called Approach Restricting which means the train may continue past this signal but must be prepared to pass the next signal at “restricted speed” (a speed that allows for stopping within half the range of vision) and must not exceed 15 mph.

This signal indication training course will be a memory game focused on teaching the users what each signal indication means. And using an interactive game to make this knowledge second nature to each employee.

Stop
Approach
Clear
Restricted
Approach Div.

Stop train before signal
Continue past signal, but prepare to stop before next signal
Continue past signal
Continue past signal, but prepare for a diverge at next signal

SUBMIT

Desired Skillsets / Technologies Used:

- HTML / Javascript
- Angular / Nebular
- Snap.svg (or similar library)

This is a great project for students who love creating beautiful and intuitive user interfaces. Students will primarily work with these front-end web technologies.

Team Size:

3 – 4 Students

Location:

Meetings will primarily be held remotely using Microsoft Teams. Students have the option of visiting our headquarters office in Louisville, CO to meet our team at that location and demo our other training products.

Post-Project Internship Opportunities:

PS Technology is looking to hire for both summer and year-round internships and would be happy to consider students on this team!

Note: All intellectual property developed as part of this project will be owned by PS Technology.