

Dynamic Visualization Tool

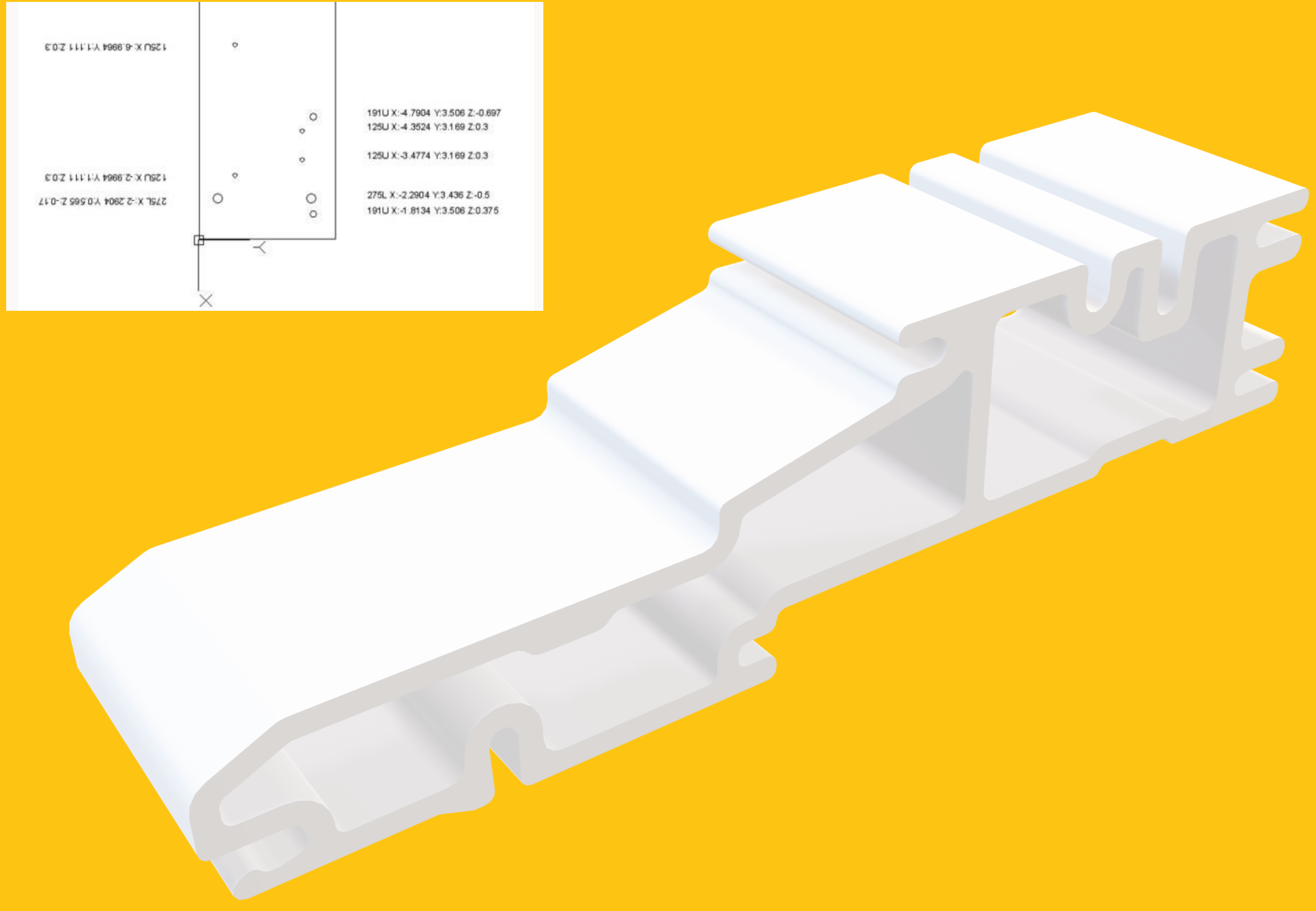
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 Sponsor: Marvin



Business Need

Marvin is a window and door manufacturer with units made custom to order. A Dynamic visualization tool would help provide more in-depth part information to benefit their in-house employees. Benefits for the company include

- Better accuracy for part features
- Better display of machine data for parts
- Allows for cross-checking what is being manufactured to what should be
 - 2D/3D visualization



Solution

A full-stack stack web application that allows users to toggle features and views of a unit part

- Takes input of machine data in batch files (XML)
- Processes machine data using XML parser into ingestible form for Babylon JS
- Links machine data and model files to display features such as drill holes
- Can view parts in 2D or 3D sections
- Can view different prints of parts (Stages of the manufacturing process)
- Allows the user to toggle on/off certain features in the view

How?

As a team, we focused on collaborating with Marvin to build a not only effective but also user-friendly solution.

Using the experience we have gained in and out of the classroom, we were determined to deliver a quality product.

Utilizing powerful frameworks like Babylon JS and React, we allowed ourselves to satisfy Marvin's need for an in-house dynamic visualization tool.

Technologies

