Beta Presentation
Railroad Physics Data Visualization

The Capstone Experience
Team Union Pacific

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Project Overview

- PS Technology uses a Unity physics engine to simulate train runs
- Need a way to process data into visual outputs
- Their solution is web based UI to generate and display static and animated graphs
System Architecture
Web UI Table Component

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Web UI Graph Component: Forces
Web UI Graph Component: Animated elevation graph
Excel file: Animated graphs
Excel file: Forces graph
What’s left to do?

• Allow web UI animated graphs to be paused
• Add extra info on web UI as shown on Excel file (speed line, time, throttle)
• Create smoothing functions for animated graphs
• Have validation API check for edge cases
• Validation check fails display error message on web UI not just URL
Questions?