



Oregon State University DUNE Project Team

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Who Are We?

- 3 senior Computer Science undergraduate students at Oregon State University
 - Lydia Brynmoor - Team Leader
 - Zac Lee - Backend Developer
 - Luke Penner - Writer/Developer
- Working with:
 - Heidi Schellman
 - Steven Timm



Oregon State
University

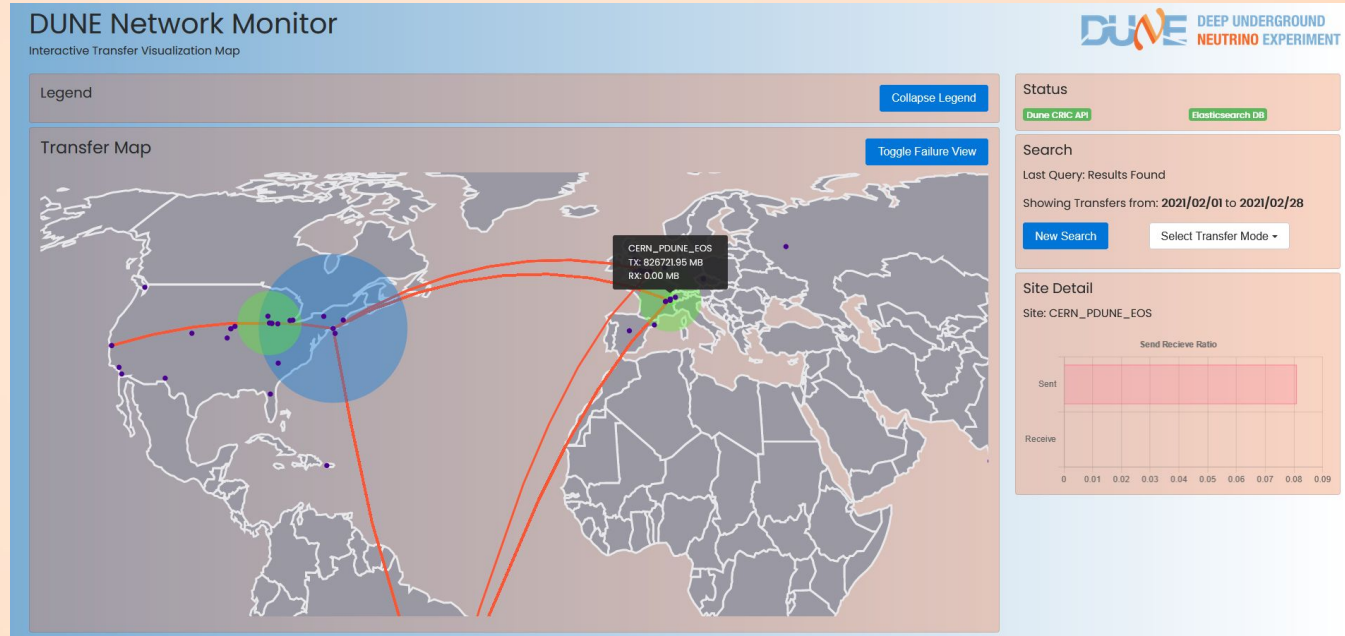
Project Goals

Create a web app that:

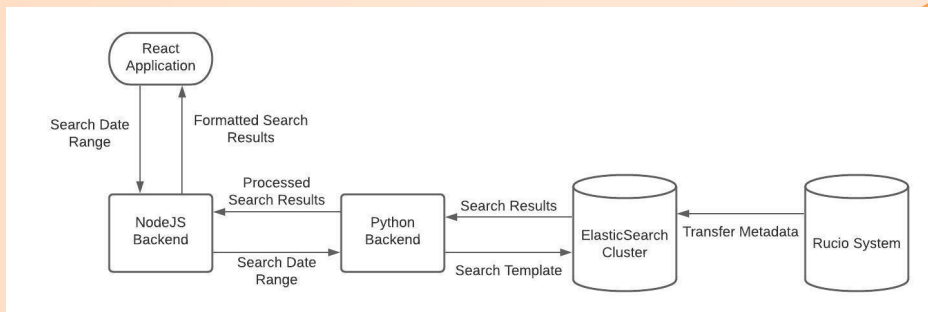
1. Allows users to visualize data transfers between facilities working on the DUNE project in order to:
 - a. Understand which facilities may be having problems
 - b. See which facilities are performing many transfers
2. Allows users to compare transfers over different time frames
3. Is able to handle a high volume of transfers
4. Uses technology that will last many years into the future

Our Project

- Purple dots are sites involved in the project
- Blue circles for transfers received
- Green circles for transfers sent
- Red lines represent transfers between sites
- Examine different time periods using the search card in the sidebar
- Site detail displays the percentage of data sent or received by the site compared to the rest of the sites over the period



Technologies Used



- React
 - Frontend application
- NodeJS
 - Server backend
- Python
 - Primary backend language
- ElasticSearch
 - Organizes search results for us to query
- Rucio
 - Transfer system and source of data

The background features a light orange gradient with various abstract shapes. There are several interconnected nodes and lines in shades of blue, orange, and white, resembling a network or molecular structure. Scattered throughout are solid circles in white, dark blue, and light blue. The overall aesthetic is clean, modern, and tech-oriented.

Project Demonstration

Planned Improvements



Network Test

The ability to display network test results on our web app

Failure Mode

We implement failure detection that displays failures by site rather than successful transfers



The background is a light orange color. It features several abstract geometric shapes and dots. On the left, there is a large orange shape with a white circle inside, connected to a blue shape. In the center, the word "Questions" is written in a bold, orange, sans-serif font. On the right, there are more complex shapes in blue, white, and orange, some with circles inside. Scattered throughout are various sized dots in white, dark blue, light blue, and orange.

Questions