

Deliverable B

Societal problem description:

There are a multitude of incidents in which hazardous materials that are being transported end up leaking or exploding, leaving a wake of destruction that comes in many forms. In most cases these hazmat transportation incidents threaten the lives, personal property and surrounding environment.

We plan to create an algorithm that, given a set of transport characteristics, tells the transporter whether their plan is high or low risk based on historical data. Additionally, given the same transport characteristics, we hope to provide a safer alternative. Hopefully this can cut down on hazardous material transportation incidents and in turn reduce the damage to people, their property, and to nature.

Dataset:

Incident report forms going back to the 70s of hazardous material transportation incidents ([Form 5800.1](#)).

<https://www.data-liberation-project.org/datasets/phmsa-hazmat-incident-reports/>

ML App:

Classification Learner - classifying plan based on historical data