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Interactive Visualizations for Explanation in AI

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Machine learning models commonly suffer from a lack of trust and understanding that comes from their complexity. The field of explainable artificial intelligence (XAI) seeks to rectify this problem by developing methods of explaining machine learning models and their outputs to relevant parties. In the area of bridge engineering, machine learning can offer insight into the relation between a bridge's conditions and its environment. In this project, I am creating two visualizations to explain a machine learning model that identifies which features of a bridge make it more likely to receive repairs. The first visualization is a post-hoc explanation that takes the output of the machine learning model and organizes it and presents it in such a way that it is interactive and easy to understand. The second visualization clarifies the inner workings of the model so a user can see how the output data came to be. Together these visualizations will work to make the bridge repair model clearer and more comprehensible.