## Analysis of the relationship between traffic and weather data for strategic snow removal in a local city

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When heavy snowfall occurs, solutions to the obstacles that arise in traffic are required. One of these obstacles is the reduction in travel speed that occurs from vehicles getting stuck. It is expected to predict the occurrence of travel speed reduction. In this study, machine learning using the natural language processing model GPT was conducted based on probe data and weather data. In addition, the validity of the results was verified and methods to improve prediction accuracy were examined. As a result, a certain level of reliability was obtained. In addition, it was confirmed that the prediction accuracy was improved when the training data was trained with explanations of the terms used in the training data. In addition, the prediction accuracy varied by region, suggesting the influence of regional characteristics such as traffic volume. It is expected that the framework of this study can be utilized in future studies of forecasting measures that utilize real-time data.