

1 Check List

1. Claims

Question: Do the main claims made in the abstract and introduction accurately reflect the paper's contributions and scope?

Answer: [Yes]

Justification: These claims are substantiated within the paper through detailed descriptions of the dataset's structure and the methodologies employed for each analysis task. We provide experimental results demonstrating the feasibility and effectiveness of these tasks, thereby validating the dataset's utility for comprehensive deep traffic and incident analysis.

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2. Limitations

Question: Does the paper discuss the limitations of the work performed by the authors?

Answer: [Yes]

Justification: We provide a limitation discussion in the <https://xaitraffic.github.io/assets/files/Appendix.pdf> section A.2.

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Question: For each theoretical result, does the paper provide the full set of assumptions and a complete (and correct) proof?

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Question: Does the paper fully disclose all the information needed to reproduce the main experimental results of the paper to the extent that it affects the main claims and/or conclusions of the paper (regardless of whether the code and data are provided or not)?

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Justification: We release the code on Github with a README file for detailed reproduction: <https://github.com/XAITraffic/XTraffic/>

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Question: Does the paper provide open access to the data and code, with sufficient instructions to faithfully reproduce the main experimental results, as described in supplemental material?

Answer: [Yes]

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Question: Does the paper specify all the training and test details (e.g., data splits, hyper-parameters, how they were chosen, type of optimizer, etc.) necessary to understand the results?

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Justification: The experimental settings are introduced in section 4, and more details are attached in the appendix. You can find them in the paper.

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Question: Does the paper report error bars suitably and correctly defined or other appropriate information about the statistical significance of the experiments?

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Justification: The main contribution of our work is releasing a novel dataset. Two of our experiments (global causal analysis and local causal analysis) cannot be evaluated with error bars. For the traffic forecasting and incident classification experiments, we will provide the error bar in the final version.

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Answer: [No]

Justification: As the motivation of all the experiments are not for presenting a novel model performance, the experiments are finished to prove that our dataset can support deep and comprehensive traffic and incident related work. The memory and time of execution are not our concerns.

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