

Dynamic Road Crime Risk Prediction with Urban Open Data

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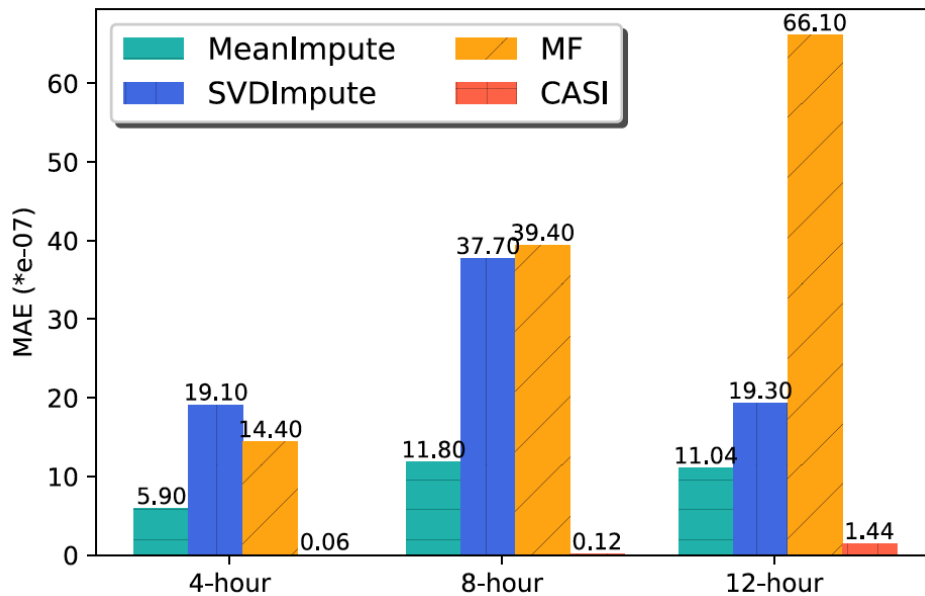
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Problems & Ideas

- Problems of road crime risks prediction, using historical crime records and multi-source urban data.
 - existing crime studies focused on coarse-grained prediction, can not meet citizens' increasing demand on fine-grained prediction
 - usually failed to capture the dynamics of urban crimes
- Ideas: predict road crime risks leveraging multi-source urban open data
 - a cross-aggregation soft-impute (CASI) method to deal with possible unreported crimes.
 - a novel crime risk measurement to capture the crime dynamics.
 - a zero-inflated negative binomial regression (ZINBR) model to predict future crime risks in roads.

Experimental Results

- Results of Unreported Crime Imputation



- Results of Crime Risk Prediction

