

Prediction of the viability of satellite imagery in terms of useful data for the purposes of geological analysis

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The publication presents an algorithm for the prediction of the viability of satellite imagery when implemented for the purposes of geological analysis. The algorithm relies on meteorological data for the specific place of interest in order to predict weather phenomena that can reduce the useful data contained in the image. Such phenomenon includes cloud cover, snow cover, accumulation of surface water, accumulation of seasonal vegetation, ect. The algorithm utilizes AI techniques and its prototype version presented in the current publication is based on the Random forest approach. The main benefit of the implementation of this algorithm is the ability to determine an optimal time window in which satellite imagery with the largest amount of useful data might be available. This can effectively reduce processing time and required data in order to perform geological analyses.

The publication presents the structure of the algorithm, its accuracy and results from its implementation.

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