Master Thesis: Evaluating Time Series Models for Forest Disturbance Detection Using a Landsat-Sentinel-2 Data Cube

Earth Observation for Ecosystem Management

Start Date: Anytime

Description of Project:
Accurate forest disturbance monitoring is essential for effective management. This project evaluates the accuracy of different time series models for detecting disturbances using a combined Landsat-Sentinel-2 data cube. Missing observations will be interpolated using phenological models to improve temporal consistency. Disturbances will be classified using models trained on a manually labeled reference database, and their detection accuracy will be analyzed based on disturbance size and severity.

Research Question: How do different time series models compare in accurately detecting forest disturbances within a Landsat-Sentinel-2 data cube, considering the effects of disturbance size and severity?

Key Outcomes:

- Comparative analysis of time series models for disturbance detection accuracy
- Manually labeled reference dataset for disturbance classification
- Insights into the impact of disturbance size and severity on model performance

You can find additional information about the Diversa project here:

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