Satellite Time Series Analysis for Vegetation Modeling

TUM-DLR Summer School 2019

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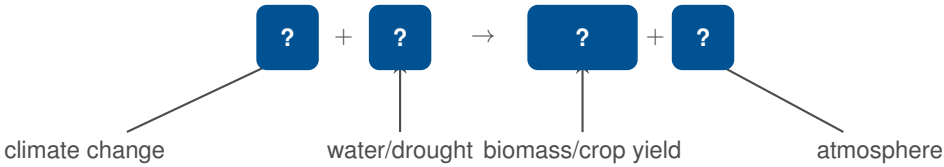
Vegetation Model

$$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$$

Vegetation Model

Vegetation Model



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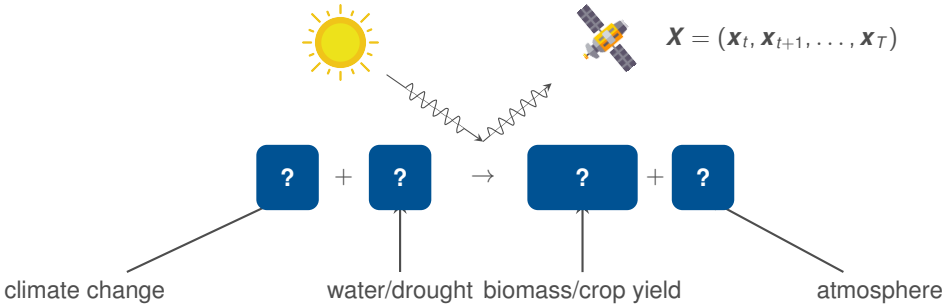

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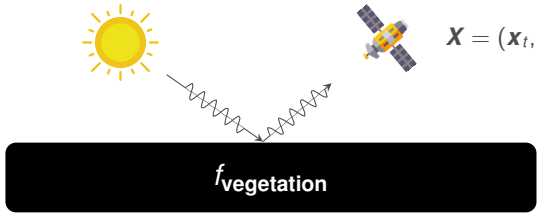

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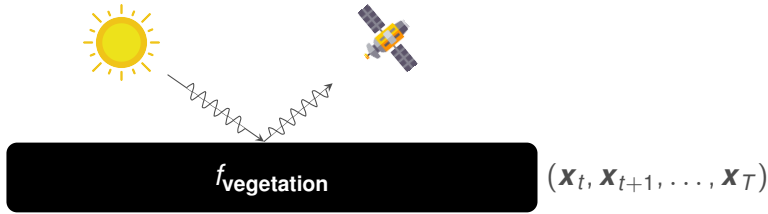

Problem: **un/self-supervised learning** of a vegetation model **is difficult**

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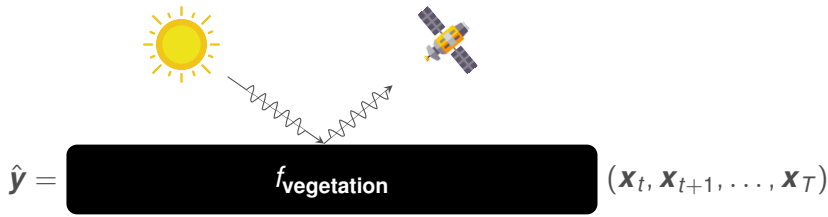

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(Proxy)-Solution: re-framing as **supervised classification** of crop type labels

$y \in \{y_{\text{corn}}, y_{\text{meadow}}, \ldots\}$

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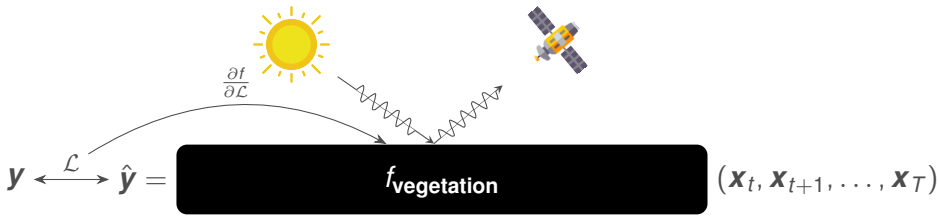

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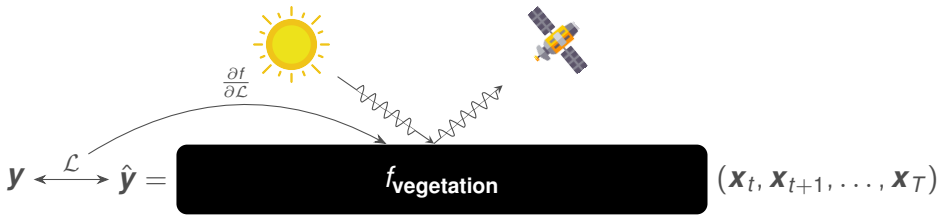

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Intuition: A **supervised classification model** must **internalize** a learned **discriminative model** for the **vegetation**

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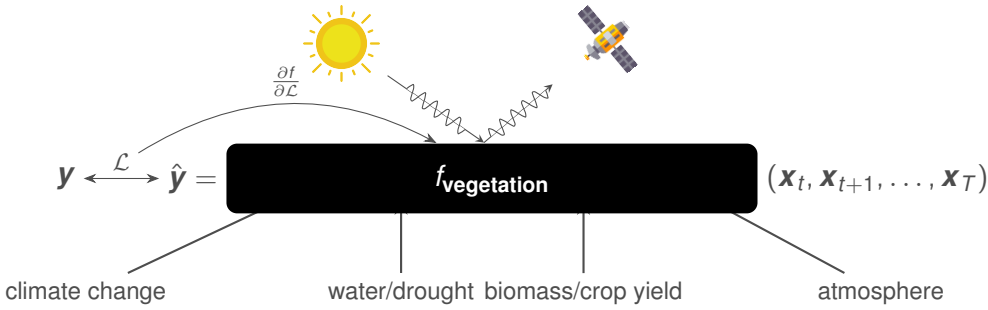

Early Classification on Remote Sensing Data