SolaNet

Unlock undiscovered solar energy potential with the help of AI

Built by Carmen Berndt, Christoph Dobra, Max Herbst & Haokun Zheng

Motivation

Motivation

Hard to use calculators

Due to the difficulty of existing solar panel system estimations, many suitable areas

Solar energy reducing carbon emissions

The energy sector is one of the largest emitters of CO2 emissions. Green energy solutions like solar panels play a vital role in reducing emissions.

Utilize unused areas

U.S. Commercial Rooftops Hold 145 Gigawatts of Untapped Solar Potential
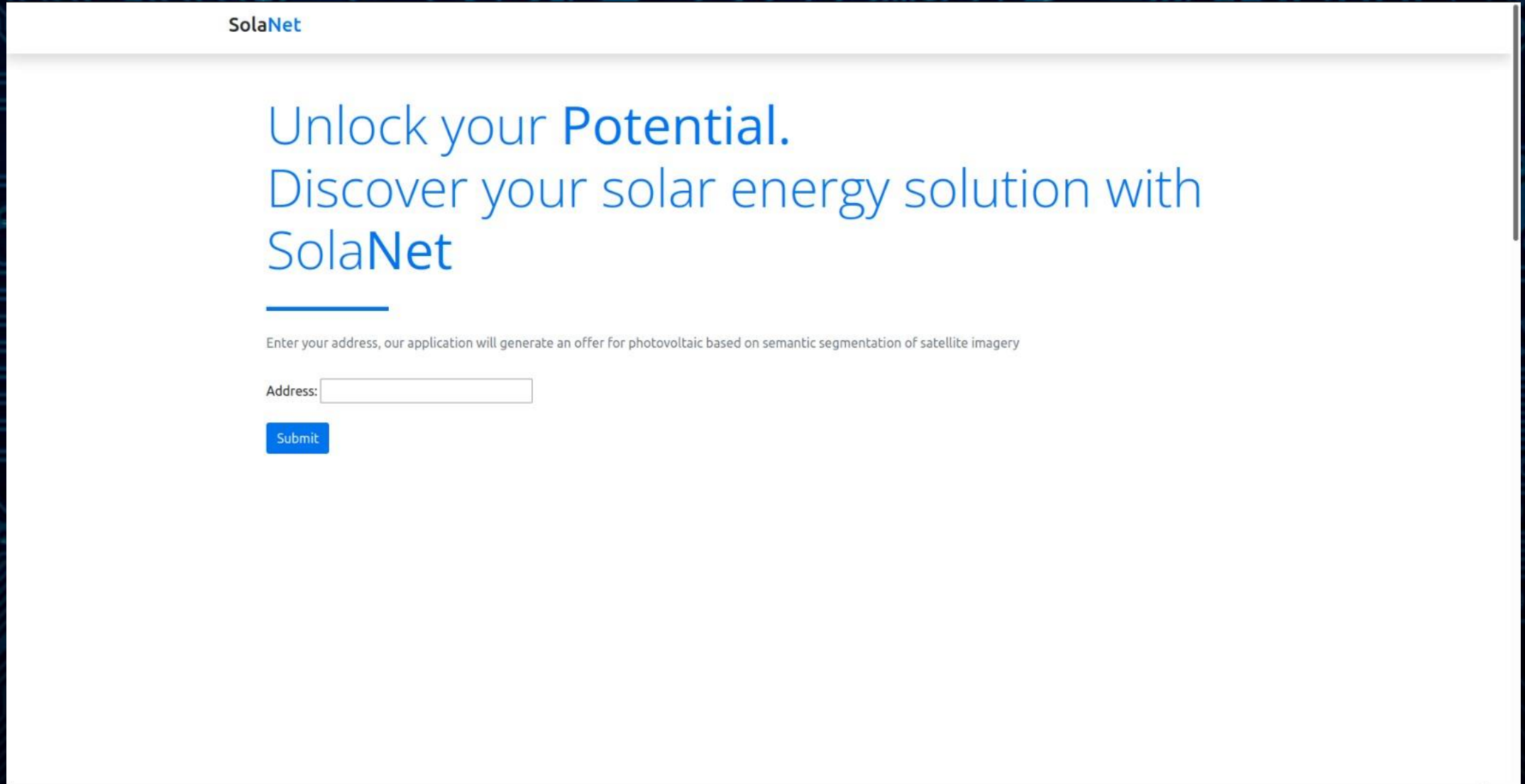
A solution powered by AI

Through high-res satellite images and semantic image segmentation, we built an web-app that allows virtually anyone in the world to evaluate the potential for solar energy solutions for a specific location.

Processing chain

Processing

1. User enters address where a potential solar panel system should be evaluated

Processing chain

2. Pull high-res satellite images from an online provider

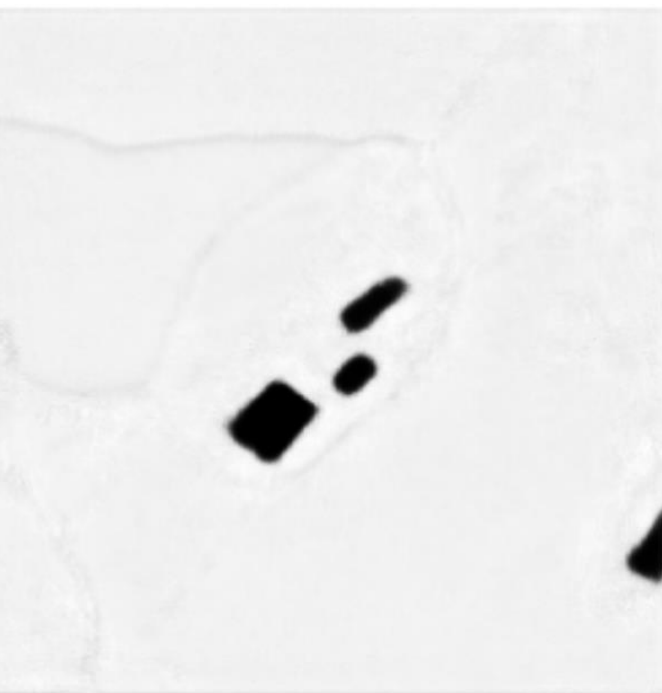3. Process image through trained ai model and determine suitable roof area
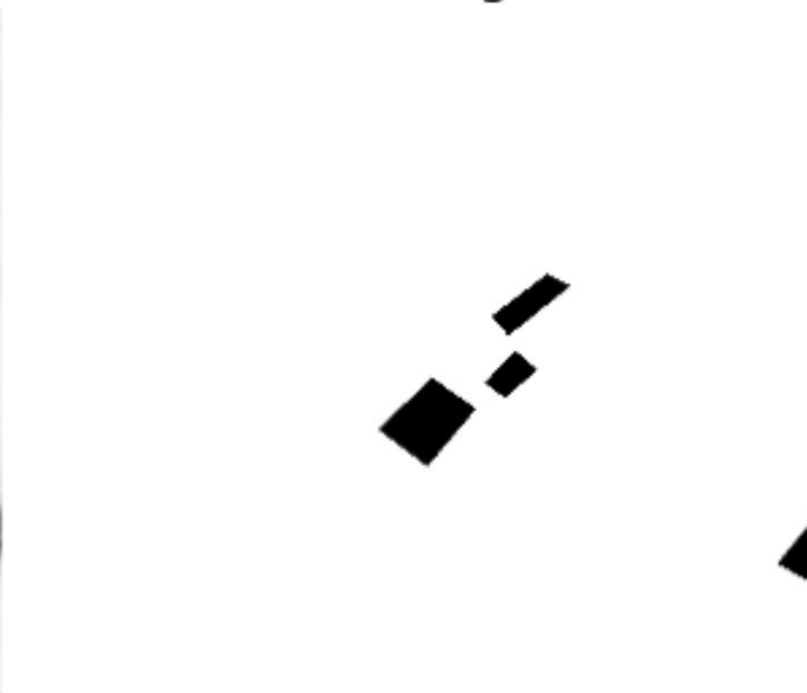
Results of our trained model
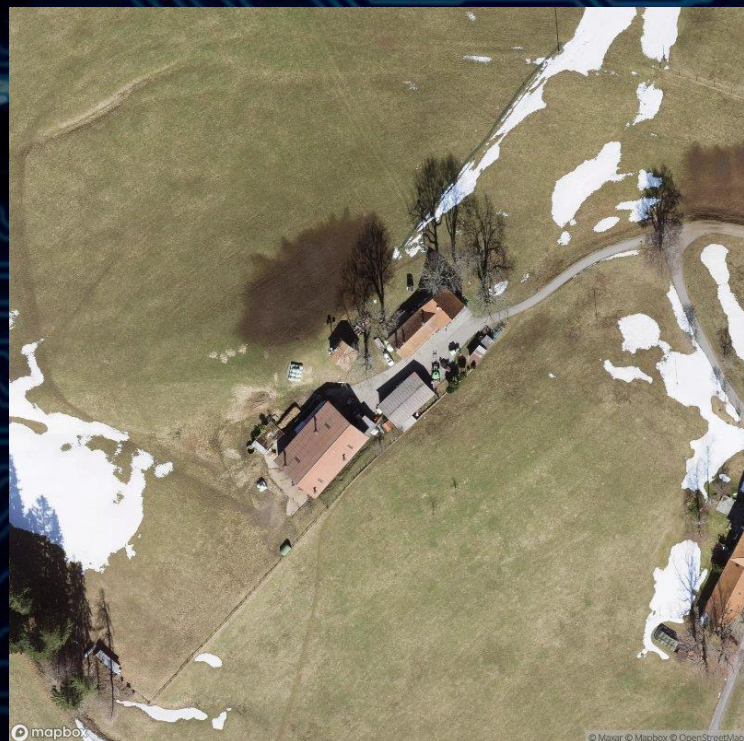
Processing
Calculate customized solar panel solution

Estimated Yearly Revenue Performance

50% self-consumption: 26492,18€

30% self-consumption: 20444,75€

15% self-consumption:18932.89€

Estimated Initial Investment Costs

Solar Panel Costs: 145180,80€

Power Inverter Costs: 2397,65€

Installation Labor Costs: 11650.01€

Total required initial investment: 159230,41€

Identified Suitable Roof Area

545 m² | 125.65 kWp installable Capacity

Calculated Break-even-Point of investment

(assuming 30% self-consumption)

7,13 Years

Show Graph

SolaNet

Thank you for your attention, we are looking forward to your questions!

Built by Carmen Berndt, Christoph Dobra, Max Herbst & Haokun Zheng