# Idea 1: Roof detection from satellite images

Problem Identification:

**Main idea – roof recognition based on satellite images.**

Ability for homeowners to define if their house has a potential for solar panels installation. If so, how many panels can be installed depending on a roof configuration, weather conditions in the area, how much energy can be potentially generated and what savings they can bring.

**Main idea - Dataset for computer vision model to be collected manually via Google Maps**

**Dataset: https://universe.roboflow.com/lara-santos/object-detection-roof-wftlj/dataset/9**

Optional. Dataset with weather-related details at [Columbia University](https://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCEP/.CPC/.GLOBAL/.STATION.cuf/datasetdatafiles.html)

Optional. Data on California’s electricity production, pricing, and consumption [California Electricity Data](https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data)

# Idea 2: Service Coordinators Workload

Service Coordinator Workload. Utilization.

Ability for management track Service Coordinator workload. Find a threshold when another headcount can be justified.

Variables: amount of field services, amount of workshop services, amount of phone calls, amount of requests via ticketing system.

E.g. If Service Technician Utilization Rate goes above 75% that gives management a greenlight to open a new Service Technician position.

# Idea 3: Customer Segmentation

In order to more effectively allocated limited resources, analyze Service customer base and assign customers to the following categories:

* Low revenue, Hard to work with
* High revenue, Hard to work with
* Low revenue, Easy to work with
* High revenue, Easy to work with

# Idea 4: Technical Support Dataset

**Dataset -** [**https://www.kaggle.com/datasets/suvroo/technical-support-dataset**](https://www.kaggle.com/datasets/suvroo/technical-support-dataset)

* Define main KPIs for Customer Satisfaction