

# Service Contract - AI & Backend

## Introduction

This is a contract between the AI engineer (Wilco van Wyk) And the Database Engineer(Jason Dutton)

This contract is used to define which data is needed to be stored in the database.

The content of this contract is subject to change.

## How the AI model will work

The AI model will get images as well as any relevant solar data, which is listed in the Training Data table as input for the model. This data will be used to update the model using a Artificial Neural Network(ANN) and learn what solar irradiation data the images will have.

When using the model, only an image will be used as input, and possibly the date which will then be used to calculate the expected solar irradiation energy for the image given.

The image will be received from a external API when the user inputs their address.

## Training Data

The Training data that needs to be stored in the database will have the following format

### Training Data:

Table Name	Datatype
Solar Irradiation Energy	long
image URL	String
date start	date/time
date end	date/time



The image URL will link to another place in the database where images are stored. The URL will be used to access and retrieve the image.

## Data retrieved

The data retrieved from the AI model will only be stored if the user creates an account and wants to use the advanced calculator.

The data stored from the calculations will be:

### Calculated Data:

Table Name	Datatype
Solar irradiation Energy	long