AI Forecasting (0.1)

Download OpenAPI specification: Download

Basic API to train and obtain forecasts from AI Forecasting

Root

Root Endpoint: provides info on the available endpoints

Returns:


```
{"message":"Welcome to the AI Forecasting API!",
"endpoints": {
"/train": "Train the stack ensemble model on the provided data.",
"/forecast": "Make predictions using the previously trained stacking en
"/model-info": "Get information about the trained model."}
```


Responses

> **200** Successful Response

GET /

Response samples

200

Content type
application/json

Copy

```
null
```

Train Model

This API Endpoint receives historical training data in the form of a JSON file, which contains:

'time', a list of strings with datetime information of the time series, freq = 15min

'load', a list of floats, which corresponds to a net-load time series of a given network point

The model is trained with the POSTed data and the model is stored

The API responds with error metric scores (MAE, SMAPE and RMSE) obtained when evaluating the model's forecasts using a test dataset (a subset of the original training set)

REQUEST BODY SCHEMA: application/json

`load` required	Array of numbers (Load)
`time` required	Array of strings (Time)

Responses

> **200** Successful Response

> **422** Validation Error

```
POST  /train
```

Request samples

Payload

Content type
application/json

Copy Expand all Collapse all

```
{
  - "load": [
        20.2,
        50,
        33.4,
        0.6
    ],
  - "time": [
        "01/01/2019 00:00",
        "01/01/2019 00:15",
        "01/01/2019 00:30",
        "01/01/2019 00:45"
    ]
}
```


Response samples

200 | 422

Content type
application/json

Copy


```
null
```

Obtain Forecast

This API Endpoint receives historical data used to forecast the day-ahead load profile, in the form of a JSON file which contains:

'time', a list of strings with datetime information of the time series, freq = 15min;

'load', a list of floats, which corresponds to a net-load time series of a given network point;

The forecasts are generated using the given data and a previously trained model. If no model has been trained, an error is raised.

The API responds with the obtained day-ahead forecast

REQUEST BODY SCHEMA: application/json

past_data required	Array of numbers (Past Data)

time
required

Array of strings (Time)

Responses

> **200** Successful Response

> **422** Validation Error

POST /forecast

Request samples

Payload

Content type
application/json

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```
{
  - "load": [
        20.2,
        50,
        33.4,
        0.6
    ],
  - "time": [
        "01/01/2019 00:00",
        "01/01/2019 00:15",
        "01/01/2019 00:30",
        "01/01/2019 00:45"
    ]
}
```


Response samples

200 **422**

Content type
application/json

Copy

```
null
```

Get Model Info

This endpoint provides the training status of the model and the timestamp when it was last trained

Responses

> **200** Successful Response

```
GET  /model-info
```

Response samples

200

Content type
application/json

Copy

```
null
```