
Craft AI MLOps platform Python SDK

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Craft AI

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Contents

1	craft_ai_sdk package	1
1.1	craft_ai_sdk.exceptions module	1
1.2	craft_ai_sdk.sdk module	1
1.3	craft_ai_sdk.utils module	1
2	CraftAiSdk class	3
2.1	Step	4
2.2	Pipeline	6
2.3	Pipeline Execution	7
2.4	Pipeline Endpoint	8
2.5	Data store	10
2.6	Environment Variables	11
	Python Module Index	13
	Index	15

craft_ai_sdk package

1.1 craft_ai_sdk.exceptions module

exception `craft_ai_sdk.exceptions.SdkException`(*message, status_code=None, name=None, stack_message=None, request_id=None, additional_data=None*)

Bases: `Exception`

General exception while using this package

1.2 craft_ai_sdk.sdk module

See *CraftAiSdk class* for more details.

1.3 craft_ai_sdk.utils module

CraftAiSdk class

```
class craft_ai_sdk.CraftAiSdk(sdk_token=None, environment_url=None, control_url=None,  
                             verbose_log=None)
```

Main class to instantiate

base_environment_url

Base URL to CraftAI Environment.

Type

str

base_environment_api_url

Base URL to CraftAI Environment API.

Type

str

base_control_url

Base URL to CraftAI authorization server.

Type

str

base_control_api_url

Base URL to CraftAI authorization server API.

Type

str

verbose_log

If True, information during method execution will be printed.

Type

bool

```
__init__(sdk_token=None, environment_url=None, control_url=None, verbose_log=None)
```

Initiates CraftAiSdk.

Parameters

- **sdk_token** (str, optional) – SDK token. You can retrieve it from the website. Defaults to CRAFT_AI_SDK_TOKEN environment variable.
- **environment_url** (str, optional) – URL to CraftAI environment. Defaults to CRAFT_AI_ENVIRONMENT_URL environment variable.
- **control_url** (str, optional) – URL to CraftAI authorization server. You probably don't need to set it. Defaults to CRAFT_AI_CONTROL_URL environment variable, or <https://mlops-platform.craft.ai>.
- **verbose_log** (bool, optional) – If True, information during method execution will be printed. Defaults to True if the environment variable SDK_VERBOSE_LOG

is set to true; False if it is set to false; else, defaults to True in interactive mode; False otherwise.

Raises

- **ValueError** – if the `sdk_token` or `environment_url` is not defined and
- **the corresponding environment variable is not set.** –

2.1 Step

```
CraftAiSdk.create_step(step_name, function_path, function_name,  
                        repository_branch=None, description=None,  
                        container_config=None, inputs=None, outputs=None)
```

Create pipeline step from a function located on a remote repository.

Parameters

- **step_name** (*str*) – Step name.
- **function_path** (*str*) – Path to the file that contains the function.
- **function_name** (*str*) – Name of the function in that file.
- **repository_branch** (*str*, optional) – Branch name. Defaults to None.
- **description** (*str*, optional) – Description. Defaults to None.
- **container_config** (*dict[str, str]*, optional) – Some step configuration, with the following optional keys:
 - "language" (*str*): Language used for the step.
 - "repository_url" (*str*): Remote repository url.
 - "repository_deploy_key" (*str*): Private SSH key of the repository.
 - "requirements_path" (*str*): Path to the requirements.txt file.
 - "included_folders" (*list[str]*): List of folders and files in the repository required for the step execution
 - "system_dependencies" (*list[str]*): List of system dependencies.
 - "dockerfile_path" (*str*): Path to the Dockerfile. This parameter should only be used as a last resort and for advanced use.
- **inputs** (*list of Input*) – List of inputs.
- **outputs** (*list of Output*) – List of outputs.

Returns

List of steps represented as dict (with either keys "id" and "name" if the creation succeeded or keys "name" and "error" if the creation failed).

Return type

list of dict[str, str]

```
CraftAiSdk.get_step(step_name)
```

Get a single step if it exists.

Parameters

- **step_name** (*str*) – The name of the step to get.

Returns

None if the step does not exist; otherwise the step information, with the following keys:

- "name" (str): Name of the step.
- "status" (str): either "Pending" or "Ready".
- "created_at" (str): The creation date in ISO format.
- "updated_at" (str): The last updation date in ISO format.
- "inputs" (dict): The inputs of the step.
- "outputs" (dict): The outputs of the step.

Return type

dict

```
CraftAiSdk.update_step(step_name, function_path, function_name,  
                        repository_branch=None, description=None,  
                        container_config=None)
```

Update a pipeline step from a source code located on a remote repository.

Parameters

- **step_name** (str) – Name of the step to update.
- **function_path** (str) – Path to the file that contains the function.
- **function_name** (str) – Name of the function in that file.
- **repository_branch** (str, optional) – Branch name. Defaults to None.
- **description** (str, optional) – Description. Defaults to None.
- **container_config** (dict[str, str], optional) – Some step configuration, with the following optional keys:
 - "language" (str): Language and version used for the step.
 - "repository_url" (str): Remote repository url.
 - "repository_deploy_key" (str): Private SSH key of the repository.
 - "requirements_path" (str): Path to the requirements.txt file.
 - "included_folders" (list[str]): List of folders and files in the repository required for the step execution
 - "system_dependencies" (list[str]): List of system dependencies.
 - "dockerfile_path" (str): Path to the Dockerfile. This parameter should only be used as a last resort and for advanced use.

Returns

Information of the updated step represented as dict (with either keys "id" and "name" if the creation succeeded or keys "name" and "error" if the creation failed).

Return type

dict[str, str]

```
CraftAiSdk.list_steps()
```

Get the list of all steps.

Returns

List of steps represented as dict (with keys "name", "status", "created_at", "updated_at").

Return type

list of dict

`CraftAiSdk.delete_step(step_name)`

Delete one step.

Parameters

step_name (*str*) – Name of the step to delete as defined in the `config.yaml` configuration file.

Returns

Deleted step represented as dict (with keys "id" and "name").

Return type

dict[str, str]

2.2 Pipeline

`CraftAiSdk.create_pipeline(pipeline_name, step_name)`

Create a pipeline containing a single step.

Parameters

- **pipeline_name** (*str*) – Name of the pipeline to be created.
- **step_name** (*str*) – Name of the step to be included in the pipeline. Note that the step should have the status "Ready" to create the pipeline.

Returns

Created pipeline represented as dict (with key "id").

Return type

dict[str, str]

`CraftAiSdk.get_pipeline(pipeline_name)`

Get a single pipeline if it exists.

Parameters

pipeline_name (*str*) – Name of the pipeline to get.

Returns

The pipeline information or None if the pipeline does not exist.

- "id" (*str*): Pipeline id.
- "name" (*str*): Pipeline name.
- "created_at" (*str*): Pipeline date of creation.
- "steps" (*list*): List of step names.

Return type

dict

`CraftAiSdk.delete_pipeline(pipeline_name, force_deployments_deletion=False)`

Delete a pipeline identified by its name and id.

Parameters

- **pipeline_name** (*str*) – Name of the pipeline.
- **force_deployments_deletion** (*bool*, optional) – if True the associated endpoints will be deleted too. Defaults to False.

Returns

The deleted pipeline and associated deleted endpoints. The returned dict contains two keys:

- "pipeline" (dict): Deleted pipeline represented as dict (with keys "id" and "name").
- "endpoints" (list): List of deleted endpoints represented as dict (with keys "id" and "name").

Return type
dict

2.3 Pipeline Execution

CraftAiSdk.**execute_pipeline**(*pipeline_name*)

Execute a pipeline.

Parameters

pipeline_name (*str*) – Name of an existing pipeline.

Returns

Created pipeline execution represented as dict (with key "execution_id").

Return type

dict[str, str]

Warning: Deprecated since version 0.8.1: This function is deprecated and its usage is not supported. Prefer creating an endpoint and triggering your pipeline with it.

CraftAiSdk.**list_pipeline_executions**(*pipeline_name*)

Get a list of executions for the given pipeline

Parameters

pipeline_name (*str*) – Name of an existing pipeline.

Returns

A list of information on the pipeline execution represented as dict (with keys "execution_id", "status", "created_at", "steps", "pipeline_name"). In particular the keys:

- "steps" is a list of the execution steps represented as dict (with keys "name", "status").
- "pipeline_name" is the executed pipeline name.

Return type

list

CraftAiSdk.**get_pipeline_execution**(*pipeline_name, execution_id*)

Get the status of one pipeline execution identified by its name.

Parameters

- **pipeline_name** (*str*) – Name of an existing pipeline.
- **execution_id** (*str*) – Name of the pipeline execution.

Returns

Information on the pipeline execution with id execution_id represented as dict (with keys "execution_id", "status", "created_at", "steps", "pipeline_name", "created_by"). In particular the keys:

- "steps" is a list of the execution steps represented as dict (with keys "name", "status").
- "pipeline_name" is the executed pipeline name.

Return type

dict

```
CraftAiSdk.get_pipeline_execution_logs(pipeline_name, execution_id,  
                                       from_datetime=None, to_datetime=None,  
                                       limit=None)
```

Get the logs of an executed pipeline identified by its name.

Parameters

- **pipeline_name** (*str*) – Name of an existing pipeline.
- **execution_id** (*str*) – ID of the pipeline execution.
- **from_datetime** (*datetime.time*, optional) – Datetime from which the logs are collected.
- **to_datetime** (*datetime.time*, optional) – Datetime until which the logs are collected.
- **limit** (*int*, optional) – Maximum number of logs that are collected.

Returns

List of collected logs represented as dict (with keys "message", "timestamp" and "stream").

Return type

list

2.4 Pipeline Endpoint

```
CraftAiSdk.create_endpoint(pipeline_name, endpoint_name, inputs_mapping=None,  
                           outputs_mapping=None)
```

Create a custom endpoint associated to a given pipeline.

Parameters

- **pipeline_name** (*str*) – Name of the pipeline.
- **endpoint_name** (*str*) – Name of the endpoint.
- **inputs_mapping** (*list* of *DeploymentInputMapping*) – List of input mappings.
- **outputs_mapping** (*list* of *DeploymentOutputMapping*) – List of output mappings.

Returns

Created endpoint represented as dict (with key "id" and "name").

Return type

dict[str, str]

```
CraftAiSdk.list_endpoints()
```

Get the list of all endpoints.

Returns

List of endpoints represented as dict (with keys "id", "name" and "pipeline").

Return type

list of dict

CraftAiSdk.get_endpoint(endpoint_name)

Get information of an endpoint.

Parameters**endpoint_name** (*str*) – Name of the endpoint.**Returns**

Endpoint information represented as dict (with keys "id", "name" and "pipeline").

Return type

dict

CraftAiSdk.trigger_endpoint(endpoint_name, endpoint_token, wait_for_results=True)

Trigger an endpoint.

Parameters

- **endpoint_name** (*str*) – Name of the endpoint.
- **endpoint_token** (*str*) – Token to access endpoint.
- **wait_for_results** (*bool*) – Automatically call *retrieve_endpoint_results* and
- **True** (*returns the execution result. Defaults to*) –

Returns

Created pipeline execution represented as dict (with key "execution_id" if "wait_for_results" is False, otherwise with key "status", "execution" & "results" or "error" depending on "status" if "wait_for_results" is True or unspecified).

Return type

dict[str, str]

CraftAiSdk.delete_endpoint(endpoint_name)

Delete an endpoint identified by its name.

Parameters**endpoint_name** (*str*) – Name of the endpoint.**Returns**

Deleted endpoint represented as dict (with keys "id", "name").

Return type

dict

CraftAiSdk.generate_new_endpoint_token(endpoint_name)

Generate a new endpoint token for an endpoint.

Parameters**endpoint_name** (*str*) – Name of the endpoint.**Returns**

New endpoint token represented as dict (with keys "endpoint_token").

Return type

dict

2.5 Data store

`CraftAiSdk.upload_data_store_object(filepath_or_buffer, object_path_in_datastore)`

Upload a file as an object into the data store.

Parameters

- **filepath_or_buffer** (*str*, or file-like object) – String, path to the file to be uploaded ; or file-like object implenting a `read()` method (e.g. via builtin `open` function). The file object must be opened in binary mode, not text mode.
- **object_path_in_datastore** (*str*) – Destination of the uploaded file.

`CraftAiSdk.download_data_store_object(object_path_in_datastore, filepath_or_buffer)`

Download an object in the data store and save it into a file.

Parameters

- **object_path_in_datastore** (*str*) – Location of the object to download from the data store.
- **filepath_or_buffer** (*str* or file-like object) – String, filepath to save the file to ; or a file-like object implementing a `write()` method, (e.g. via builtin `open` function). The file object must be opened in binary mode, not text mode.

Returns

content of the file

Return type

`str`

`CraftAiSdk.list_data_store_objects()`

Get the list of the objects stored in the data store.

Returns

List of objects in the data store represented as dict (with keys "path", "last_modified", and "size").

Return type

list of dict

`CraftAiSdk.delete_data_store_object(object_path_in_datastore)`

Delete an object on the datastore.

Parameters

- **object_path_in_datastore** (*str*) – Location of the object to be deleted in the data store.

Returns

Deleted object represented as dict (with key "path").

Return type

dict

2.6 Environment Variables

`CraftAiSdk.create_or_update_environment_variable(environment_variable_name, environment_variable_value)`

Create or update an environment variable available for all pipelines executions.

Parameters

- **environment_variable_name** (*str*) – Name of the environment variable to create.
- **environment_variable_value** (*str*) – Value of the environment variable to create.

Returns

An object containing the id of environment variable (with keys "id")

Return type

dict

`CraftAiSdk.list_environment_variables()`

Get a list of all environments variables.

Returns

List of environment variable as dict (with keys "name" and "value")

Return type

list of dict

`CraftAiSdk.delete_environment_variable(environment_variable_name)`

Delete the specified environment variable

Parameters

- **environment_variable_name** (*str*) – Name of the environment variable to delete.

Returns

dict (with keys "name" and "value") of the deleted environment variable

Python Module Index

C

`craft_ai_sdk.exceptions`, [1](#)
`craft_ai_sdk.sdk`, [1](#)
`craft_ai_sdk.utils`, [1](#)

Symbols

`__init__()` (*craft_ai_sdk.CraftAiSdk method*), 3

B

`base_control_api_url` (*craft_ai_sdk.CraftAiSdk attribute*), 3

`base_control_url` (*craft_ai_sdk.CraftAiSdk attribute*), 3

`base_environment_api_url` (*craft_ai_sdk.CraftAiSdk attribute*), 3

`base_environment_url` (*craft_ai_sdk.CraftAiSdk attribute*), 3

C

`craft_ai_sdk.exceptions`
module, 1

`craft_ai_sdk.sdk`
module, 1

`craft_ai_sdk.utils`
module, 1

`CraftAiSdk` (class in *craft_ai_sdk*), 3

`create_endpoint()` (*craft_ai_sdk.CraftAiSdk method*), 8

`create_or_update_environment_variable()`
(*craft_ai_sdk.CraftAiSdk method*), 11

`create_pipeline()` (*craft_ai_sdk.CraftAiSdk method*), 6

`create_step()` (*craft_ai_sdk.CraftAiSdk method*), 4

D

`delete_data_store_object()`
(*craft_ai_sdk.CraftAiSdk method*), 10

`delete_endpoint()` (*craft_ai_sdk.CraftAiSdk method*), 9

`delete_environment_variable()`
(*craft_ai_sdk.CraftAiSdk method*), 11

`delete_pipeline()` (*craft_ai_sdk.CraftAiSdk method*), 6

`delete_step()` (*craft_ai_sdk.CraftAiSdk method*), 5

`download_data_store_object()`
(*craft_ai_sdk.CraftAiSdk method*), 10

E

`execute_pipeline()` (*craft_ai_sdk.CraftAiSdk method*), 7

G

`generate_new_endpoint_token()`
(*craft_ai_sdk.CraftAiSdk method*), 9

`get_endpoint()` (*craft_ai_sdk.CraftAiSdk method*), 9

`get_pipeline()` (*craft_ai_sdk.CraftAiSdk method*), 6

`get_pipeline_execution()`
(*craft_ai_sdk.CraftAiSdk method*), 7

`get_pipeline_execution_logs()`
(*craft_ai_sdk.CraftAiSdk method*), 8

`get_step()` (*craft_ai_sdk.CraftAiSdk method*), 4

L

`list_data_store_objects()`
(*craft_ai_sdk.CraftAiSdk method*), 10

`list_endpoints()` (*craft_ai_sdk.CraftAiSdk method*), 8

`list_environment_variables()`
(*craft_ai_sdk.CraftAiSdk method*), 11

`list_pipeline_executions()`
(*craft_ai_sdk.CraftAiSdk method*), 7

`list_steps()` (*craft_ai_sdk.CraftAiSdk method*), 5

M

module
 craft_ai_sdk.exceptions, 1
 craft_ai_sdk.sdk, 1
 craft_ai_sdk.utils, 1

S

`SdkException`, 1

T

`trigger_endpoint()` (*craft_ai_sdk.CraftAiSdk method*), 9

U

`update_step()` (*craft_ai_sdk.CraftAiSdk method*), 5

`upload_data_store_object()`
(*craft_ai_sdk.CraftAiSdk method*), 10

V

`verbose_log` (*craft_ai_sdk.CraftAiSdk attribute*), 3