

Amazon Web Services (AWS) S3 Uploading, Downloading and Syncing

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Contents

1	S3 Usages	1
1.1	Upload Local File to S3	1

1 S3 Usages

Go to the [RMD](#), [PDF](#), or [HTML](#) version of this file. Go back to [Python Code Examples](#) Repository ([bookdown site](#)) or the [pyfan](#) Package ([API](#)).

1.1 Upload Local File to S3

A program runs either locally or on a remote EC2 machine inside a docker container. Upon exit, data does not persist in the docker container and needs to be exported to be saved. The idea is to export program images, csv files, json files, etc to S3 when these are generated, if the program detects that it is been executed on an EC2 machine (in a container).

First, inside the program, detect platform status. For Docker Container on EC2, AWS Linux 2 has platform.release of something like `4.14.193-194.317.amzn2.x86_64`.

```
import platform as platform
print(platform.release())
# This assumes using an EC2 instance where amzn is in platform name
```

```
## 10
if 'amzn' in platform.release():
    s3_status = True
else:
    s3_status = False
print(s3_status)
```

```
## False
```

Second, on s3, create a bucket, `fans3testbucket` for example (no underscore in name allowed). Before doing this, set up AWS Access Key ID and AWS Secrete Access Key in `/Users/fan/.aws` folder so that boto3 can access s3 from computer. Upon successful completion of the push, the file can be accessed at https://fans3testbucket.s3.amazonaws.com/_data/iris_s3.dta.

```
import boto3
s3 = boto3.client('s3')
spn_local_path_file_name = "C:/Users/fan/py4econ/vig/aws/setup/_data/iris_s3.dta"
str_bucket_name = "fans3testbucket"
```

```
spn_remote_path_file_name = "_data/iris_s3.dta"  
s3.upload_file(spn_local_path_file_name, str_bucket_name, spn_remote_path_file_name)
```