Aves2Client

Aves2Client是Aves2平台的命令行工具，支持用户进行提交、查看、删除任务等基本等任务管理功能。

软件包依赖

- simplejson
- requests>=2.1.8
- configobj>=5.0
- pyyaml>=3.12
- prettytable

安装

```
pip install aves2_client
```

配置

获取API Token

访问Aves2，获取API Token。 http://<AVES2 HOST>/aves2/center/token/

配置aves2 client

```
# mkdir ~/.aves2/
# vim ~/.aves2/aves2.cfg
[Aves2Server]
    host = 'http://<AVES2_HOST>/aves2/'
    api_token ='<YOUR API TOKEN>'

[UserInfo]
    username = '<YOUR NAME>'
    namespace = ''   # 训练任务将提交到指定的namespace

[StorageConf]
    [[S3]]
        S3Endpoint = ''
        S3AccessKeyId = ''
        S3SecretAccessKey = ''
```

获取Job定义模版

训练任务可以使用本地共享文件系统、对象存储、PVC等类型的数据。通过aves2 example命令可以获取任务
模版：

```
# aves2 example hostpath
```

```yaml
job_name: 'hostpath demo'
debug: true
distribute_type: Null  # Null, HOROVOD, TF_PS
image: <镜像地址>
resource_spec:
  worker:
    count: 1
    cpu: 4
    mem: 2  # 2G
    gpu: 1
running_spec:
  source_code:                           # 源代码相关配置
    storage_mode: HostPath
    storage_conf:
      path: <代码所在本地路径>
  envs: []                               # 用户可以设置环境变量
  cmd: "python3 main.py"                 # 启动命令
  normal_args: []                        # 超参数
    # - name: batch-size
    #   value: 64
    # - name: epochs
    #   value: 10
    # - name: lr
    #   value: 0.01
  input_args:                            # 输入类参数
    - name: data-dir
      data_conf:
        storage_mode: HostPath
        storage_conf:
          path: <输入数据集的本地路径>
  output_args:                           # 输出类参数
    - name: output-dir
      data_conf:
        storage_mode: HostPath
        storage_conf:
          path: <输出本地路径>
```

```yaml
# aves2 example pvc

job_name: 'k8spvc demo'  # 仅在kubernets集群中支持
debug: true
namespace: default
distribute_type: Null  # Null, HOROVOD, TF_PS
image: <镜像地址>
resource_spec:
  worker:
    count: 1
    cpu: 4
    mem: 2  # 2G
    gpu: 1
running_spec:
```

```yaml
    source_code:                          # 源代码相关配置
      storage_mode: K8SPVC
      storage_conf:
        pvc: <PVC NAME>
        path: <代码所在的子路径>
    envs: []                              # 用户可以设置环境变量
    cmd: "python3 main.py"                # 启动命令
    normal_args: []                       # 超参数
      # - name: batch-size
      #   value: 64
      # - name: epochs
      #   value: 10
      # - name: lr
      #   value: 0.01
    input_args:                           # 输入类参数
      - name: data-dir
        data_conf:
          storage_mode: K8SPVC
          storage_conf:
            pvc: <PVC NAME>
            path: <输入数据所在的子路径>
    output_args:                          # 输出类参数
      - name: output-dir
        data_conf:
          storage_mode: OSSFile
          storage_conf:
            path: s3://<输出路径/          # 输出将被保存到对象存储
```

```yaml
# aves2 example ossfile

job_name: 'ossfile demo'
debug: true
distribute_type: Null   # Null, HOROVOD, TF_PS
image: <镜像地址>
resource_spec:
  worker:
    count: 1
    cpu: 4
    mem: 2  # 2G
    gpu: 0
running_spec:
  source_code:                          # 源代码相关配置
    storage_mode: OSSFile
    storage_conf:
      path: s3://<代码路径>/demo.zip
  envs: []                              # 用户可以设置环境变量
  cmd: "python3 main.py"                # 启动命令
  normal_args: []
    # - name: batch-size
    #   value: 64
    # - name: epochs
```

```
    #    value: 10
    # - name: lr
    #    value: 0.01
  input_args:                          # 输入类参数
    - name: data-dir
      data_conf:
        storage_mode: OSSFile
        storage_conf:
          path: s3://<输入数据集路径>/
  output_args:                         # 输出类参数
    - name: output-dir
      data_conf:
        storage_mode: OSSFile
        storage_conf:
          path: s3://<输出路径/
```

提交任务

```
aves2 create -f xxx.jaml
```

查看任务

```
aves2 list
+-------+-----------+-------------------------------+------------------
----------+----------+
| jobId | Namespace | job名称                        | 创建时间
| 状态       |
+-------+-----------+-------------------------------+------------------
----------+----------+
| 128   | aiplatform | pytorch mnist-HostPath        | 2020-03-
20T18:09:48.770668Z | 运行成功 |
| 124   | aiplatform | pytorch mnist-HostPath        | 2020-03-
20T17:31:17.836239Z | 运行失败 |
| 123   | aiplatform | pytorch mnist-HostPath        | 2020-03-
20T17:25:09.654684Z | 已取消    |
+-------+-----------+-------------------------------+------------------
----------+----------+
```

更多命令

```
# aves2 --help
usage: aves2 [-h] {create,rerun,list,show,delete,cancel,log,example} ...

Command line for AVES2

optional arguments:
  -h, --help            show this help message and exit

Available commands:
  {create,rerun,list,show,delete,cancel,log,example}
```

create	**Create** aves2 job
rerun	Rerun aves2 job
list	List aves2 jobs
show	**Show** aves2 job info
delete	**delete** aves2 job
cancel	cancel aves2 job
log	**log** aves2 job
example	**show** aves2 job example