
Good Morning!
老师同学们早上好!

Please follow the following steps to get today's content
请执行以下命令下载课堂内容:

in git bash (用 gitbash)

```
cd /c  
cd pdm  
git stash  
git pull -a  
git checkout -b weixiuai origin/weixiuai
```

Curriculum / 课程安排

	PST	Date/ 日期	Tasks	任务
Lesson 1	27-Aug	28-Aug	Manufacturing 4.0 / Predictive Maintenance	制造 4.0 / 预测性维护
Lesson 2	3-Sep	4-Sep	Environment / Manufacturing 4.0 / Pdm	环境 / 制造 4.0 / Pdm
Lesson 3	24-Sep	25-Sep	Environment / Manufacturing 4.0 / Pdm	环境 / 制造 4.0 / Pdm
Lesson 4	1-Oct	2-Oct	Environment / ML / Data Loading	环境/机器学习/数据加载
Lesson 5	2-Oct	3-Oct	Data Loading / EDA	数据加载/EDA
Lesson 6	8-Oct	9-Oct	EDA	EDA
Lesson 7	15-Oct	16-Oct	EDA / Feature Engineering	EDA/特征工程
Lesson 8	23-Oct	23-Oct	Feature Engineering / Feature Selection	特征工程
Lesson 8 -A	25-Oct	25-Oct	Feature Engineering	特征工程
Lesson 9	30-Oct	30-Oct	Feature Selection	特征选择
Lesson 10	5-Nov	6-Nov	Knowledge Review / Strategies / Mid-term Examination	知识复习/期中考试
Lesson 11	12-Nov	13-Nov	RUL Modeling Using LSTM/Similarity based / Exponential Degradation Models	使用基于 LSTM/相似性模型/指数退化模型的 RUL 建模
Lesson 12	19-Nov	20-Nov	RUL Modeling Using LSTM/Similarity based / Exponential Degradation Models	使用基于 LSTM/相似性模型/指数退化模型的 RUL 建模
Lesson 13	26-Nov	27-Nov	RUL Modeling Using LSTM/Similarity based / Exponential Degradation Models	使用基于 LSTM/相似性模型/指数退化模型的 RUL 建模
Lesson 14	3-Dec	4-Dec	Failure Classification CNN/LSTM,RNN / Binary/Multiclassification	故障分类 CNN/LSTM,RNN / 两类/多类
Lesson 15	10-Dec	11-Dec	End to end, docker, vs code and cookiecutter	准备code project 和环境, docker, cookiecutter, vs code.
Lesson 16	17-Dec	18-Dec	End to end, docker, vs code and cookiecutter	准备code project 和环境, docker, cookiecutter, vs code.
Lesson 17	24-Dec	25-Dec	Data Streaming, Kafka and Engineering Pipeline	数据流、Kafka 和工程管道
Lesson 18	31-Dec	1-Jan	Model Deployment	模型部署
Lesson 19	7-Jan	8-Jan	Model Deployment / Final Exam Handout	模型部署/期末考试讲义
Lesson 20	14-Jan	15-Jan	Review and Exam check	复习和考试检查

12/11/2022

Welcome Back!

**Cellphone users, please use the following link:
用手机的同学, 请参照:**

<https://github.com/stemproaca/pdm/tree/weixiuai>

第一节: 8:30-9:15

第二节: 9:20-10:05

第三节: 10:15-11:00

第四节: 11:05-11:50

12/11/2022

**Before we start: Any Questions?
有什么问题和建议?**

Pmd Logistics / 预备

12/11/2022

AAFIE, 2022

Today/今天:

Install: VS Code <https://code.visualstudio.com/download>

Pypi: pip install cookiecutter

Install Docker and set up account.

Pull weixiuai branch

review project structure / 应用app

decision: Azure or AWS or Streamlit

Confluent Kafka or base Apache Kafka

Docker ML

1. Download and install docker for windows

<https://docs.docker.com/desktop/install/windows-install/>

make sure to choose WSL 2 backend WSL – Windows Subsystem for Linux

You need to register and get an Docker ID

You can sign in to docker hub

docker run --rm -p 8888:8888 jupyter/scipy-notebook
--rm means it will be deleted after the process

docker ps
list running containers

docker exec -ti container_id bash
ssh to running container – ssh: secure shell

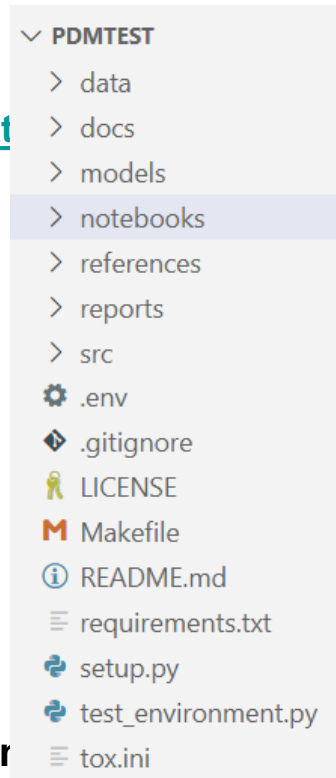
Cookie Cutter

1. <https://github.com/drivendata/cookiecutter-data-science>

steps:

- a. `$> pip install cookiecutter`
- b. `$> cookiecutter -c v1 https://github.com/drivendata/cookiecutter-data-science`
 -c: v1 v2 is coming soon
- c. `$> pip install -r requirements.txt`

for detailed step by step: refer to url above



tox.ini: tox is for testing the project against different env and configuration

docker: from <https://hub.docker.com/r/civisanalytics/datascience-python>

Q & A