

AI & ML for Data Scientists

Class 3: Our Weapons: Git, Cloud Computing & Python

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Git

Cloud Computing

Your Final Python Part Class (Maybe)

Your First Python Project

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Why Git?

- Git is must-learn tools for the modelers in industries
- With Git you cooperate with your teammates easily
- We use Git to 1) share slides, 2) share codes, 3) submit homeworks & quiz 4) cooperate on modeling projects with teammates

Our Git Group

1. Github (人大量化)
https://github.com/Quant-of-Renmin-University/Quant_RUC
2. Please add to our Git group, team and repo for the permission
(详细请看上一讲)
3. Go to our class repo
4. Create a personal folder by using **submission branch**

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Why Cloud Computing

- Powerful
- Built for AI and Quant Modeling
- Cheaper than traditional computers
- Amazon AWS, Microsoft Azure, Google Colab,

Cloud Computing Not Cheap

- Could computing is not cheap for us as students
- Price charts for Ali Yun (Links)

云服务器ECS规格	CPU内存	公网带宽	系统盘	优惠价
GPU云服务器gn6v (ecs.gn6v-c8g1.2xlarge)	8核32G (16G显存V100计算卡)	1M-200M 带宽可选	40G系统盘	3048.00元/月, 2 7432.00元一年
GPU云服务器gn6i (ecs.gn6i-c4g1.xlarge)	4核15G (NVIDIA 16G显存T4计算卡)	1M-200M 带宽可选	40G系统盘	1339.20元/月, 1 2052.80元一年
GPU云服务器vgn6i (ecs.vgn6i-m4.xlarge)	4核23G (NVIDIA 支持4GB和8GB显存T4计算卡)	1M-200M 带宽可选	40G系统盘	469.46元/月, 42 25.14元一年

Free Cloud Computing

- Github Codespaces
- Google Colab
- Kaggle
- Limitations: 1) not enough CPU or GPU; 2) Can't run offline; 3) Can't access

RUC Cloud Computing (follow me)

- Thanks to Renmin University Cloud for our students
- Renmin Univ. invested great fortune to help you to learn AI & to be the talent of the future (Thanks to 人民大学人工智能平台、人民大学大仪器、信息学院)
- <https://datahub.ruc.edu.cn>

Setup RUC cloud computing (Follow Me)

1. Go to <https://datahub.ruc.edu.cn>
2. follow me to add the class group
3. **Use it !!!**

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Your Final Python Part Class

- We will go through QuantEcon Classes (depending on your study progress)
- Please **RUN** the codes step by step following me on class
- Also you should run them and read section by section at home **at least once**
- To push your Python learning, we have cold calls on class for the codes we learned

Please turn to our codes

JUST RUN IT!!!

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Your First Python Project

- Your first AI project
- Use the python skills we learn from first 3 classes
- Solve the problems within team, but coding independently

Grad School Application Generator

- The application materials will take us huge time
- Application agencies, they will charge tens of thousands of CNY
- The agencies always make mistakes
- So we use the python and template to generate the Application Letters automatically