MSML 605 - Lecture 9

Version Control - Contd.

Remote branches

Create and switch to a new branch

git checkout -b devops

- Now add a new file and commit it
- Push this new branch to the remote repository

git push -u origin devops

```
Username for 'https://github.com': nayeemmz
Password for 'https://nayeemmz@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 397 bytes | 198.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'devops' on GitHub by visiting:
            https://github.com/nayeemmz/test/pull/new/devops
remote:
remote:
To https://github.com/nayeemmz/test.git
* [new branch] devops -> devops
Branch 'devops' set up to track remote branch 'devops' from 'origin'.
```

Remote Master

Add a file and commit on master remotely (Github)

Switch to the master branch

git checkout master

Pull the master repository

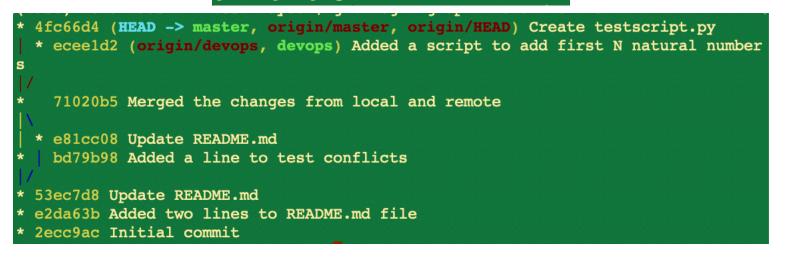
git pull

```
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/nayeemmz/test
71020b5..4fc66d4 master -> origin/master
Updating 71020b5..4fc66d4
Fast-forward
testscript.py | 2 ++
1 file changed, 2 insertions(+)
create mode 100644 testscript.py
```

Log tree

Check the log tree

git log --graph --oneline --all



Rebase the master and branch

Check out the branch git checkout devops

Rebase / merge with the master git rebase master

First, rewinding head to replay your work on top of it... Applying: Added a script to add first N natural numbers

Look at the log graph again

git log --graph --oneline --all

* b188470 (HEAD -> devops) Added a script to add first N natural numbers * 4fc66d4 (origin/master, origin/HEAD, master) Create testscript.py * eceeld2 (origin/devops) Added a script to add first N natural numbers 71020b5 Merged the changes from local and remote

e81cc08 Update README.md bd79b98 Added a line to test conflicts

* 53ec7d8 Update README.md * e2da63b Added two lines to README.md file * 2ecc9ac Initial commit

Merge master and branch

- Check out master git checkout master
- Merge with the branch git merge devops

Updating 4fc66d4..b188470
Fast-forward
 new_script.py | 6 +++++
 1 file changed, 6 insertions(+)
 create mode 100644 new_script.py
 (base) Mohammads-MBP:test nayeem\$ git status
 On branch master
 Your branch is ahead of 'origin/master' by 1 commit.
 (use "git push" to publish your local commits)
 nothing to commit, working tree clean

- Push the changes to the remote repository and delete git push --delete origin devops
- Delete locally too

git branch -d devops

Rebase again

- Add a new function to a file
- Stage and commit it

git commit -a -m'Added a function to find the power of number'

Forks

• Go to TopDeepLearning Projects Github page

aymericdamien / TopDeepLearning	♥ Watch ▼ 353 ★ Star	4.9k	∛ Fork	1k
<>Code ① Issues 8 ⑦ Pull requests 7 ○ Actions Ⅲ Projects 0	Security 0			
Branch: master - TopDeepLearning / README.md		Find file	e Copy	v path
aymericdamien update list	fl	e8d7a on	1 Aug 16, 2	2019
7 contributors 👹 🥁 🖦 📖 🕅 🕼 🧊				
346 lines (344 sloc) 46.6 KB	Raw Blame H	listory		Î
Top Deep Learning Projects				
A list of popular github projects related to deep learning (ranked by stars).				
Last Update: 2019.08.15				

Try to edit a file

Forks

Try to edit a file

You're editing a file in a project you don't have write access to. We've **created a fork of this project** for you to commit your proposed changes to. Submitting a change to this file will write it to a new branch in your fork, so you can send a pull request.

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Forks

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Pull Request

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Comparing changes

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 Changes you send to the repository owner to incorporate in their repository

(1	base repository: aymer	cdamien/TopDeepLea • base: master •	head repository: nayeemmz/TopDeepLearning -	compare: master -	
	✓ Able to merge. These	e branches can be automatically merged.			
11	Create pull request	Discuss and review the changes in this com	parison with others.		
	- 2 commits	1 file changed	□ Commit comments	4 contributor	
	 ◆ 2 commits Commits on May 05, 20 		☐ 0 commit comments	L 1 contributor	
			☐ 0 commit comments		957d

Create Pull Request

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks.

1	ba	ase reposi	tory: aymericdamien/ 1	TopDeepLea 🔻	b	ase: n	naste	r ▼	+	head r	epos	itory: r	nayeem	mz/	ТорDеер	Learning 🔻	compare: master ▼
	~ A	ble to m	erge. These branch	es can be autom	natio	cally r	nerg	ed.									
R		Added	a line for <u>Theano</u>														l resources
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		Leave a	comment														
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Create Pull Request

Added a line for Theano #29

🖹 Open nayeemmz wants to merge 2 commits into aymericdamien:master from nayeemmz:master 😭 Conversation 0 -O- Commits 2 Files changed 1 Checks 0 +2 -0 nayeemmz commented now •••• **Reviewers** No reviews No description provided. Still in progress? Convert to draft Assignees nayeemmz added 2 commits 8 minutes ago No one assigned Update README.md Verified 957d5c0 -0-Update README.md ... Labels Verified 7cdd6e3 -0-None yet Add more commits by pushing to the master branch on nayeemmz/TopDeepLearning. Projects

%	This branch has no conflicts with the base branch	None yet
	Only those with write access to this repository can merge pull requests.	Milestone
		No milestone

Edit

Make a local copy

• You can also create a fork from the GUI itself

Make a local copy by: git clone <repository url>

- Check log: git log

Fork - Changes

• To make changes to forked repository

• Create a branch : git checkout -b add-comments

Create a new comments file, comments.md

- git add comments.md
- git commit -m "Add a new comments file"

Fork - Changes

 Add a new branch on the remote respository git push -u origin add-comments

ဖို add-comments (4 minutes ago)			jî c	ompare & pull request
Branch: master - New pull request	Create new file	Upload files	Find file	Clone or download 🗸
This branch is 2 commits ahead of aymericdamien:master.			រ៉ា Pull re	equest 🖹 Compare
			1	
	•		• 1	
You can make a pull request	using	the I	ınk	

Pull Request

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks.

ពេ	base repository: aymericda	amien/TopDeepLea 👻	base: master ▼	•	head repository: nayeemmz/TopDeepLearning -	compare: master •	
	✓ Able to merge. These b	pranches can be autom	atically merged.				
	Added a line for Theano No description available	#29				ी View pull req	uest
	-0- 2 commits	🖹 1 file	e changed		\bigtriangledown 0 commit comments	4 1 contributor	
	Commits on May 05, 2020						
-0-	nayeemmz	Update README.md				Verified	957d5c0
- - -	🚱 nayeemmz	Update README.md	••			Verified	7cdd6e3
🖹 Sho	owing 1 changed file with 2	2 additions and 0 delet	tions.			Unified	Split

Code Review

Checking someone else' code

https://smartbear.com/learn/code-review/what-is-code-review/

https://help.github.com/en/github/collaborating-with-issues-and-pull-requests/about-pull-request-reviews

https://medium.com/osedea/the-perfect-code-review-process-845e6ba5c31

Tracking Issues

a nayeemmz / test Private	• Wate	th ▼ 0 ★ Star 0 ♀ Fork 0
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Attach files by dragging & dropping, selecting or pasting them.	Mŧ	

Tracking Issues

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	Ipdate docum	entation nds ago by nayeemmz							

- As a part of the commit message you can close an issue by using: Closes: #1 (issue number)
- When the code is merged to the main tree, Github will automatically close the issue.



Tracking Issues

Assign the issue

nayeemmz commented 9 minutes ago) •••	Assignees	¢
Please include detailed comments	Assigr	n up to 10 people to this issue	
	Туре	or choose a name]
nayeemmz self-assigned this 22 seconds ago	× Cle	ear assignees	
	-	nayeemmz Mohammad Nayeem Teli	
Update documentation with the com including Closes #1 (issue number)	mit	message	
nayeemmz / test Private	tch v (D ★ Star 0 ¥ Fork 0	
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