



CORRELAID

GOOD CAUSES. BETTER EFFECTS.

Git(hub) für Newbies

CorrelAid | Git(hub) für Newbies

Agenda

- ❑ **Über uns** | Wir & CorrelAid
- ❑ **Motivation** | Wofür brauchen wir Git?
- ❑ **Git Setup** | Git & Github
- ❑ **Git Workflow** | Pull, Commit, Push etc.
- ❑ **Hands On** | Übungs-Repository



Über uns



Friederike Bauer

M.Sc. Social & Economic Data Science
Volunteer CorrelAid
Stuttgart



Zoé Wolter

M.Sc. Social & Economic Data Science
Education @CorrelAid
Konstanz

Über uns | CorrelAid e.V.

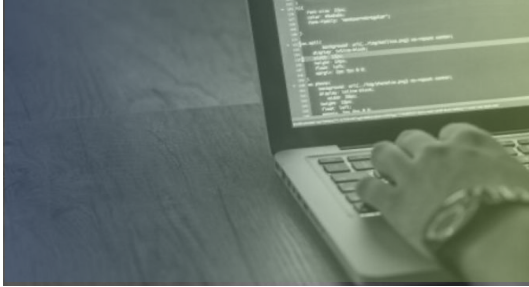


#MetaWorldSavers

Wir sind ein europaweites Netzwerk von mehr als 2000 Daten-Enthusiast:innen, die die Welt mit Data Science besser machen wollen. Komplett remote oder durch unsere Local Chapter - wir sind Vorreiter von Data4Good!



Unsere Mission



PROJEKTE

Wir führen pro-bono Datenanalyseprojekte für gemeinnützige Organisationen durch und ermöglichen so, dass auch die Zivilgesellschaft evidenzbasiert und effizient arbeiten kann.



BILDUNG

Wir bieten sozial engagierten Datenanalytist:innen und dateninteressierten gemeinnützigen Organisationen, Möglichkeiten ihr Wissen über Daten zu verbessern.

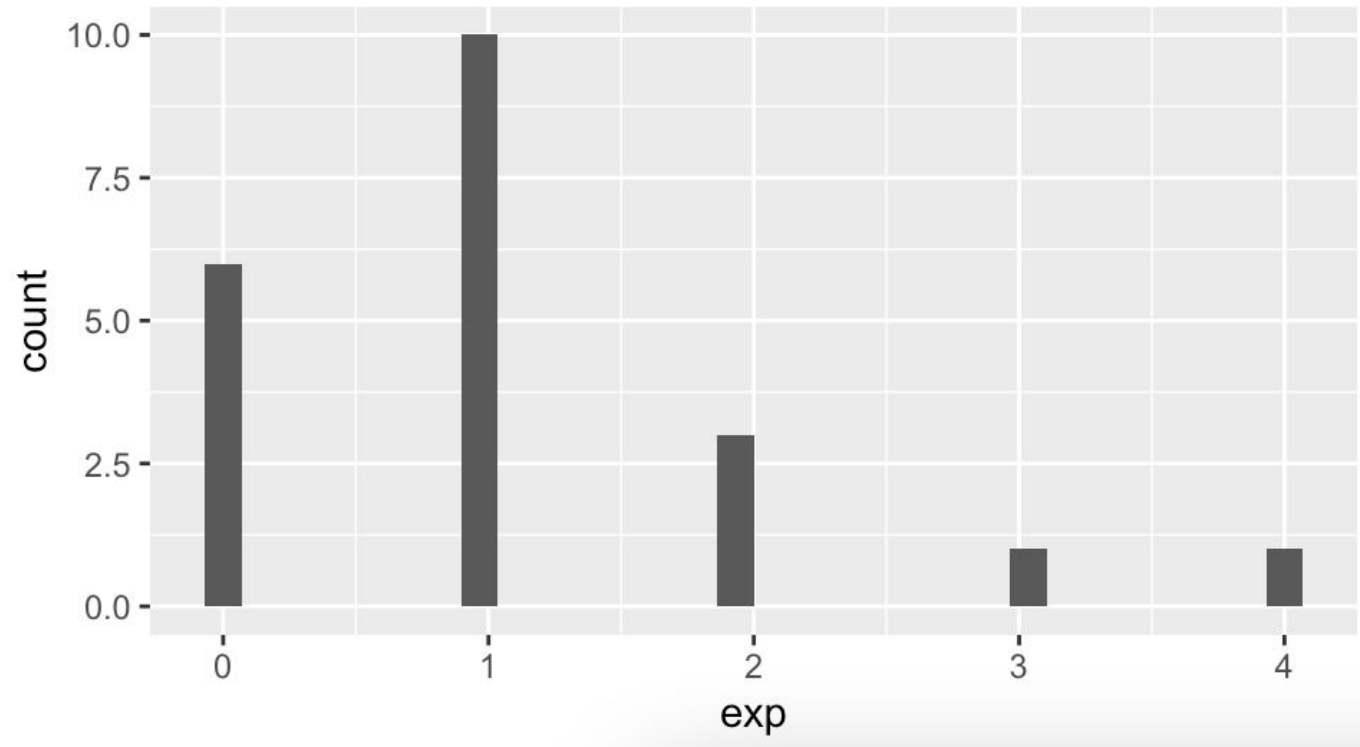


COMMUNITY

Wir vernetzen sozial engagierte Datenenthusiast:innen und treten in den Dialog über den Wert und Nutzen von Daten und Datenanalysen für das Gemeinwohl.



Über euch





CORRELAID

GOOD CAUSES. BETTER EFFECTS.

Motivation

Wofür brauchen wir Git?



plots	01Kurzexposé_BA_Wolter.Zoé.pdf
plots-final	draft_exposé-BA.pdf
plots-final2	draft_exposé-BA_Wolter.pdf
draft-2021-01-06	draft_presentation_BA.pdf
draft-2021-02-19	draft01Exposé_BA_Wolter.Zoé.pdf
draft-2021-02-20	draft02_presentation_BA.pdf
draft-2021-03-05	draft02Exposé_BA_Wolter.Zoé.pdf
draft-2021-03-06	draft03Exposé_BA_Wolter.Zoé.pdf
draft-2021-03-07	draft03-presentation.pdf
draft-2021-03-08	draft04Exposé_BA_Wolter.Zoé.pdf
draft-2021-03-09	Exposé_BA_Wolter.Zoé.pdf
draft-2021-03-11	
draft-2021-03-13	
draft-2021-03-24	



– Version Control –



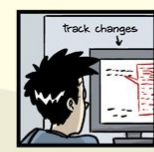
...und viele mehr!

"FINAL".doc



FINAL_rev.6.COMMENTS.doc

FINAL_rev.8.comments5.
CORRECTIONS.doc



FINAL_rev.18.comments7.
corrections9.MORE.30.doc

FINAL_rev.22.comments49.
corrections.10.#@\$%WHYDID
ICOMETOGRADSCHOOL?????.doc

WWW.PHDCOMICS.COM

https://mixmastamyk.bitbucket.io/pro_soft_dev/vcs.html



CORRELAID

GOOD CAUSES. BETTER EFFECTS.

Git Setup

Git & Github



Linux

```
$ sudo dnf install git-all  
$ sudo apt install git-all
```

macOS

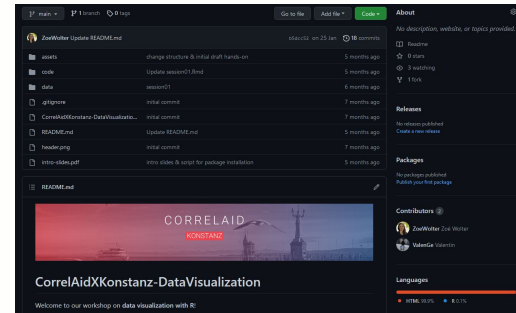
```
$ git --version
```

Windows

```
http://git-scm.com/download/win
```



```
https://github.com
```





```
MINGW64:/c/Users/schnecke/Documents/correl-aid/lc-konstanz/hackatho...
schnecke@LAPTOP-MOCAJH9A MINGW64 ~/Documents/correl-aid/lc-konstanz/hackathons/hack-and-harvest
$ cd ..

schnecke@LAPTOP-MOCAJH9A MINGW64 ~/Documents/correl-aid/lc-konstanz/hackathons
$ cd hack-and-harvest/

schnecke@LAPTOP-MOCAJH9A MINGW64 ~/Documents/correl-aid/lc-konstanz/hackathons/hack-and-harvest
```

```
orrelaid@CorrelAids-MBP WS22_FirstWave_StudentSurvey % git status
On branch main
Your branch is up to date with 'origin/main'.
```

```
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   conjoint/templates/conjoint/StudentInteractions.html
        modified:   db.sqlite3
```

```
no changes added to commit (use "git add" and/or "git commit -a")
correlaid@CorrelAids-MBP WS22_FirstWave_StudentSurvey % git add .
correlaid@CorrelAids-MBP WS22_FirstWave_StudentSurvey % git commit -m "fix StudentInteractions.html"
[main d4dbf26] fix StudentInteractions.html
 2 files changed, 121 insertions(+), 72 deletions(-)
correlaid@CorrelAids-MBP WS22_FirstWave_StudentSurvey % git push
Username for 'https://github.com': ZoeWolter
Password for 'https://ZoeWolter@github.com':
Enumerating objects: 13, done.
Counting objects: 100% (13/13), done.
Delta compression using up to 10 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (7/7), 6.41 KiB | 3.21 MiB/s, done.
Total 7 (delta 5), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (5/5), completed with 5 local objects.
To https://github.com/LS-Shikano/WS22_FirstWave_StudentSurvey.git
dc642bc..d4dbf26  main -> main
```

`cd .. / cd Documents/`

`git clone`
`'https://github.com/{github_username}/{git-newbie-hack_and_harvest}'`

`git add .`

`git commit -m '{commit-message}'`

`git push`

`git pull`

Access Codes statt Passwort

The screenshot illustrates the steps to generate a classic personal access token on GitHub:

- Settings** (highlighted in the left sidebar)
- Developer settings** (highlighted in the bottom of the main menu)
- Personal access tokens** (highlighted in the left sidebar)
- Tokens (classic)** (highlighted in the main content area)

The **Tokens (classic)** section is marked as **Beta**. It includes a **Generate new token** button and a **Revoke all** button. Below these buttons, it states: "Tokens you have generated that can be used to access the [GitHub API](#)."

Github Desktop

Desktop Interface als Alternative für das Terminal / Kommandozeile. Unterstützt alle Funktionen und gibt auch einen Einblick, was sich in den Dateien geändert hat.

repository / branch →

changes →

commit message →

← fetch/ push

← file preview

The screenshot shows the Github Desktop application interface. At the top, the current repository is 'master-thesis' and the current branch is 'main'. A 'Fetch origin' button is visible, indicating the last fetch was 15 minutes ago. Below this, the 'Changes' tab is selected, showing a list of 7 changed files. The file 'src/models/k-cross.ipynb' is highlighted. To the right of the file list, the 'file preview' pane shows the content of 'src/models/k-cross.ipynb', which is a JSON file containing a 'cells' array. The 'Commit to main' button is visible at the bottom of the interface.



CORRELAID

GOOD CAUSES. BETTER EFFECTS.

Git Workflow

Pull, Commit, Push etc.

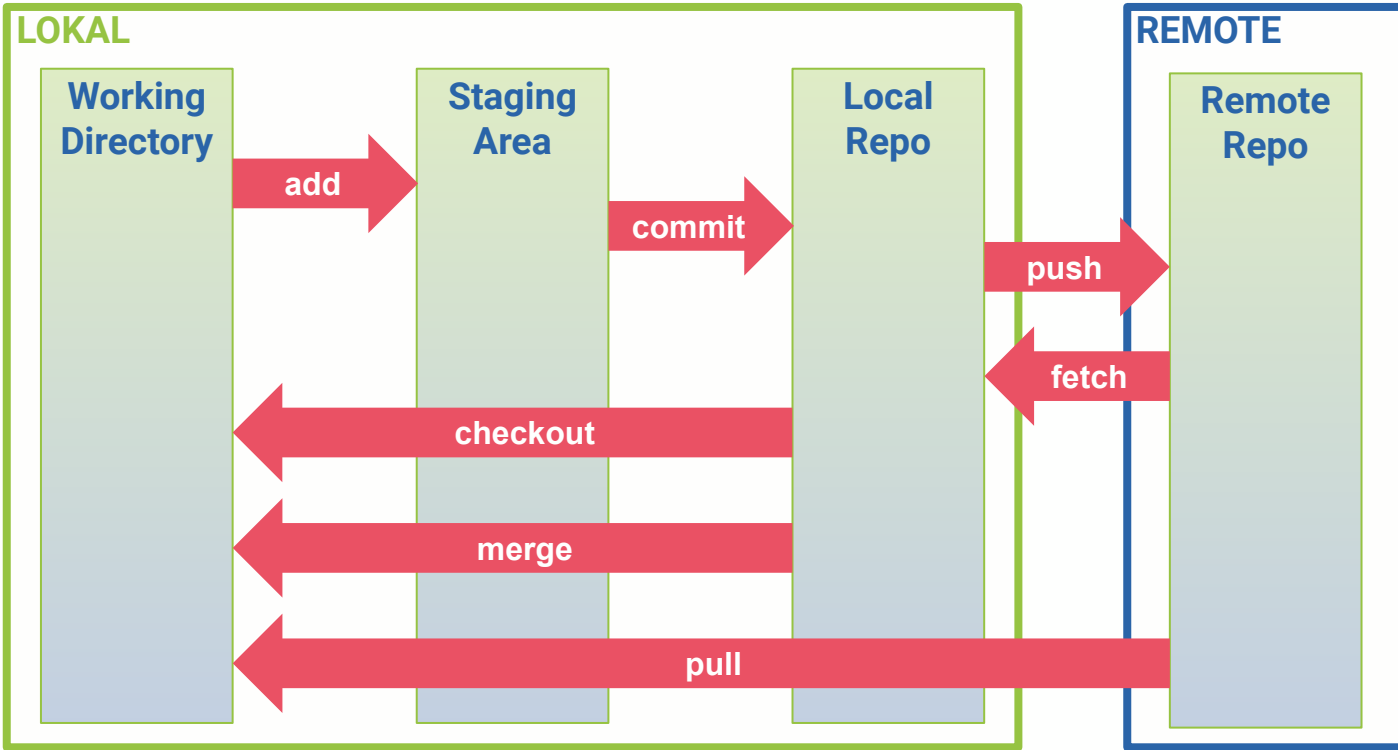
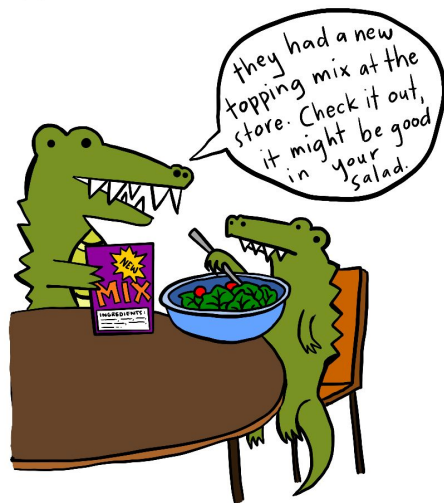




Illustration by Allison Horst (https://twitter.com/allison_horst)

Fetch vs Pull

git fetch: bring stuff home



git pull: bring stuff home AND merge it in



check what you're getting before merging it in with git fetch

@allison-horst

Git fork

Forking = erstellt ein neues Repository mit dem Repository von dem man forked als Grundlage. An diesem kann man dann weiterarbeiten, ohne das ursprüngliche Projekt "kaputt" zu machen.

The screenshot shows a GitHub repository page for 'CorrelAid / git-newbie-hack_and_harvest'. The repository is public and has 14 forks and 1 star. A dropdown menu titled 'Your existing forks' is open, showing 'You don't have any forks of this repository.' and a '+ Create a new fork' button. The repository page includes tabs for Code, Pull requests, Projects, Security, and Insights. The main content area shows the 'main' branch, which is 6 commits ahead of CorrelAid:main. A commit by philbosch is visible, along with a file list including 'images' and '.gitignore'. The right sidebar contains information about the repository, including a description, license (MIT), stars, watchers, and forks.

CorrelAid / **git-newbie-hack_and_harvest** Public
forked from CorrelAid/git-newbie-playground

<> Code Pull requests Projects Security Insights

main 1 branch 0 tags

This branch is 6 commits ahead of CorrelAid:main.

Go to file Add file Code About

About

This is a repository for Git newbies to fork and play with.

Readme MIT license 1 star 1 watching 14 forks

philbosch Update README.md 821a28b on Jul 7 51 commits

images	Add files via upload	4 months ago
.gitignore	gitignore	7 months ago

Commits helfen uns und anderen!

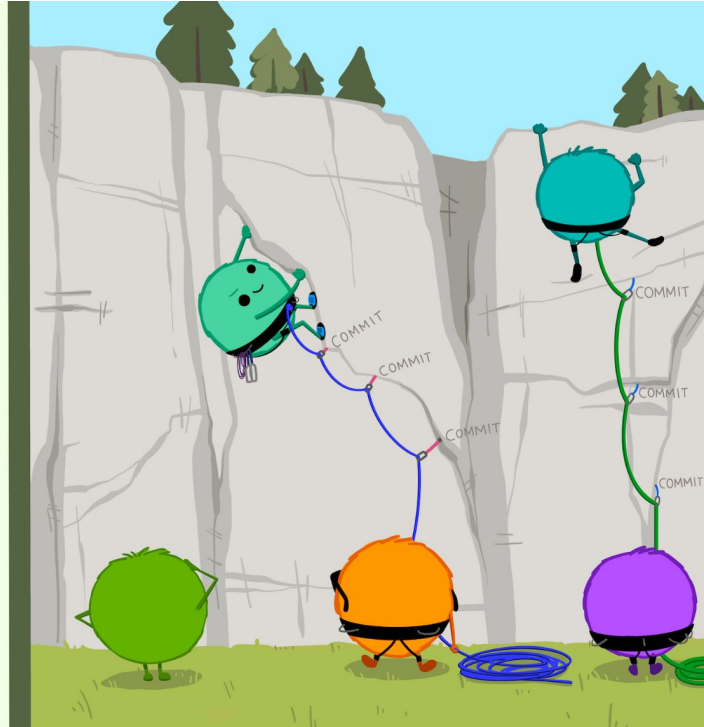


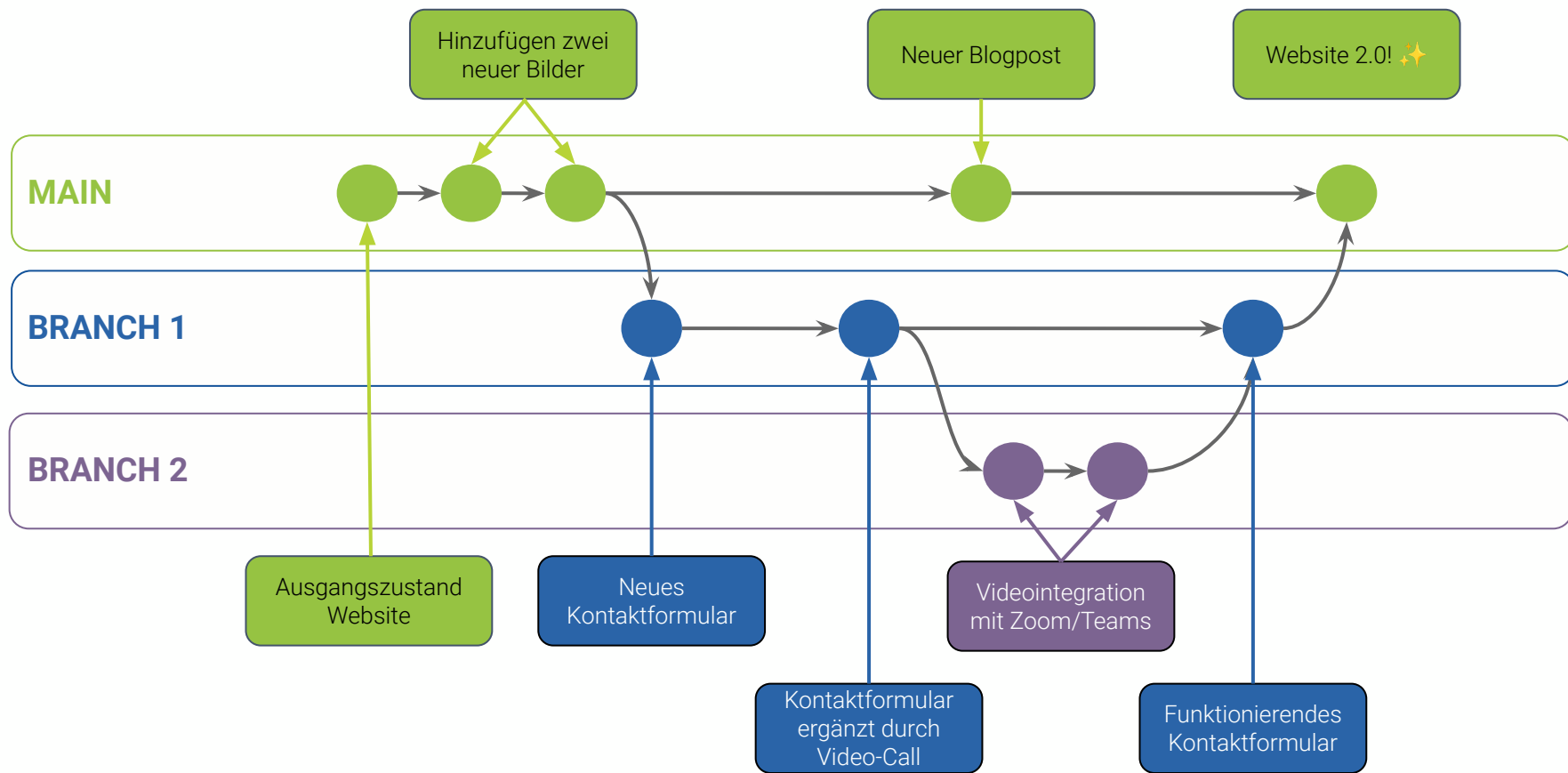
Using a Git commit is like using anchors and other protection when climbing...**if you make a mistake, you can't fall past the previous commit.**

Commits are also helpful to others, because **they show your journey, not just the destination.**

— HADLEY WICKHAM & JENNY BRYAN

Wickham & Bryan, RPackages (<https://r-packages.org/preface.html>)





Ihr bei CorrelAid e.V.

Datenkurs
"R Lernen"

education@correlaid.org



WORKSHOPS



Workshops mit / für
andere Non-Profits
zoe.w@correlaid.org

Newsletter

<https://correlaid.org/volunteer/>



CORRELTALK



Machtpotential von Wähler*innen
mit Migrationshintergrund

AB 27. MAI 2022 AUF:



Data4Good-Podcast:
CorrelTalk
linktr.ee/correltalk

Local Chapter

konstanz@correlaid.org



CORRELAID

KONSTANZ

Link zum Podcast: linktr.ee/correltalk



CORRELAID

GOOD CAUSES. BETTER EFFECTS.

Hands On

Übungs-Repository