

Tools to write and publish your code

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PariSanté Campus

Today's talk

How to:

- Collaborate with **git**.
- Create a personal **webpage**.
- Make your code **look clean**.
- Test your code **automatically**.

I will **focus on tools** which are:

- **Easy** to use, free of charge and with minimal overhead.
- **Accessible** to all of us – i.e. no Inria- or Inserm-specific service.

These slides are available on my webpage (Research tab, Talks section).

Collaborate with git

Is your current workflow good enough?

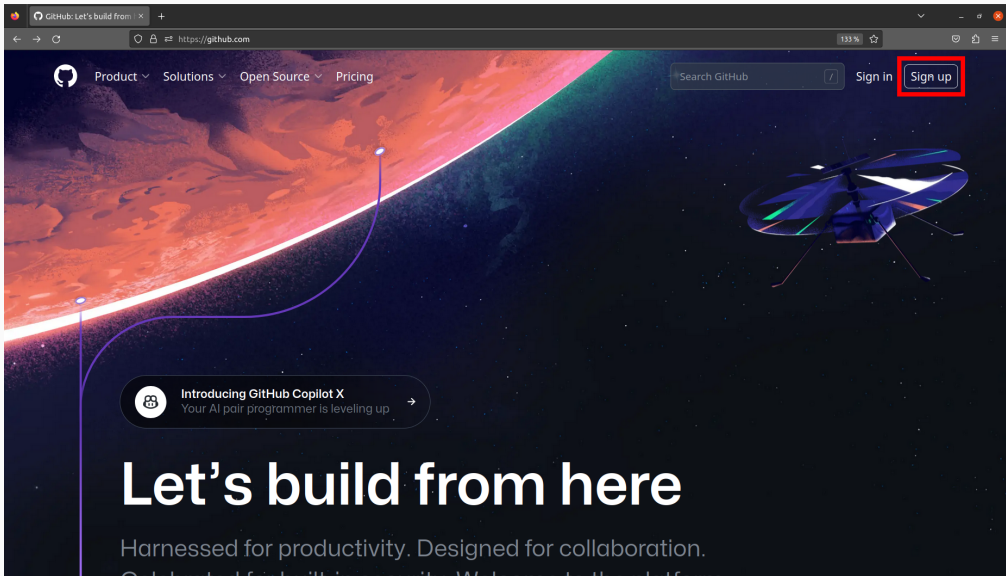
Working in a **local folder** or in a Dropbox prevents you from:

- Keeping track of the **history** of your project.
- **Rolling back** modifications.
- Working in **parallel** with your **collaborators**.
- Welcoming **direct feedback** from external users.

Git is the standard tool to **solve these issues**:

- **Free**, open source software.
- **Ubiquitous** both in academia and the industry.
- De-centralized, **offline** copies of the project history stay on your computer.
- **Synchronization** and authentication via a web platform: GitHub, GitLab...

GitHub is the main platform worldwide, maintained by Microsoft



Create a new shared folder, or *repository*

The screenshot shows the GitHub homepage in a web browser. The browser's address bar displays 'https://github.com'. The GitHub navigation bar at the top includes a search bar, a link to 'Pull requests', and links to 'Issues', 'Codespaces', 'Marketplace', and 'Explore'. On the left sidebar, the user profile 'jeanfeydy' is shown. Below the profile, the 'Top Repositories' section lists several repositories, including 'getkeops/keops', 'jeanfeydy/survival-GPU', 'jeanfeydy/EPITA-AI-for-Healthcare', 'jeanfeydy/arteries-atlas', 'jeanfeydy/survivalGPU', 'shape-analysis/shape-analysis.github.io', and 'jeanfeydy/geomloss'. A 'New' button, represented by a green square with a white plus icon and the word 'New', is highlighted with a red rectangle. Below the repositories, there is a 'Recent activity' section with a message: 'When you take actions across GitHub, we'll provide links to that activity here.' The main content area is titled 'For you' and features a 'Beta' badge. It displays a list of repositories starred by users: 'wzm2256' starred 'kiharalab / DOVE' (A Deep-learning based dOcking decoy eValuation mEthod, Python, 53 stars, 2 hours ago), 'hypnopump' starred 'guanjq / targetdiff' (The official implementation of 3D Equivariant Diffusion for Target-Aware Molecule Generation and Affinity Prediction (ICLR 2023), Jupyter Notebook, 62 stars, 5 hours ago), and '2004content / rarbg' (Backup of magnets from RARBG, Python, 1.5k stars). A 'Trending repositories' section is also visible. On the right sidebar, the 'Latest changes' section lists recent updates, including 'GitHub Actions - Just-in-time self-hosted runners' (18 hours ago), 'CodeQL code scanning now supports Swift (beta)' (2 days ago), and '2023 Update for Services Continuity and Incident Plan' (Last week). The 'Explore repositories' section shows 'AMReX-Astro / Castro' (239 stars, C++) and 'murraco / jekyll-theme-minimal.resume'.

GitHub

Search or jump to...

Pull requests Issues Codespaces Marketplace Explore

jeanfeydy

Top Repositories

Find a repository...

getkeops/keops

jeanfeydy/survival-GPU

jeanfeydy/EPITA-AI-for-Healthcare

jeanfeydy/arteries-atlas

jeanfeydy/survivalGPU

shape-analysis/shape-analysis.github.io

jeanfeydy/geomloss

Show more

Recent activity

When you take actions across GitHub, we'll provide links to that activity here.

New

For you **Beta** Following

Send feedback Filter

wzm2256 starred a repository · 2 hours ago

kiharalab / DOVE

A Deep-learning based dOcking decoy eValuation mEthod

Python ☆ 53

hypnopump starred a repository · 5 hours ago

guanjq / targetdiff

The official implementation of 3D Equivariant Diffusion for Target-Aware Molecule Generation and Affinity Prediction (ICLR 2023)

Jupyter Notebook ☆ 62

Trending repositories · Show more

2004content / rarbg

Backup of magnets from RARBG

Python ☆ 1.5k

Latest changes

18 hours ago

GitHub Actions - Just-in-time self-hosted runners

2 days ago

CodeQL code scanning now supports Swift (beta)

3 days ago

View repository pushes on the new activity view

Last week

2023 Update for Services Continuity and Incident Plan

View changelog →

Explore repositories

AMReX-Astro / Castro

Castro (Compressible Astrophysics): An adaptive mesh, astrophysical compressible (radiation-, magneto-) hydrodynamics simulation code for massively parallel CPU and GPU architectures.

☆ 239 ● C++

murraco / jekyll-theme-minimal.resume

Specify the main properties of your project

New repository · GitHub

← → ↻ https://github.com/new 133 % ☆

🔍 Search or jump to... Pull requests Issues Codespaces Marketplace Explore

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Owner * **Repository name ***

🌐 jeanfeydy / git_tutorial

✔ git_tutorial is available.

Great repository names are short and memorable. Need inspiration? How about **turbo-lamp**?

Description (optional)

A demo repository.

☐ **Public**
Anyone on the internet can see this repository. You choose who can commit.

☒ **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

☐ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs](#).

Add .gitignore

.gitignore template: Python

Choose which files not to track from a list of templates. [Learn more about Ignoring files](#).

Choose a license

A reference copy of the repository is now in the cloud

The screenshot shows a web browser displaying the GitHub repository page for 'jeanfeydy/git_tutorial'. The browser's address bar shows the URL 'https://github.com/jeanfeydy/git_tutorial'. The GitHub navigation bar at the top includes a search bar, links for 'Pull requests', 'Issues', 'Codespaces', 'Marketplace', and 'Explore', along with user avatars and a notification bell. Below the navigation bar, the repository name 'jeanfeydy / git_tutorial' is displayed with a 'Private' label. To the right of the repository name are buttons for 'Unwatch' (1), 'Fork' (0), and 'Star' (0). A secondary navigation bar contains links for '<> Code', 'Issues', 'Pull requests', 'Actions', 'Projects', 'Security', 'Insights', and 'Settings'. The main content area shows the repository's file structure with a 'main' branch and '0 tags'. A commit history table lists the 'Initial commit' by 'jeanfeydy' with the commit hash 'dfdcbb7' and the file '.gitignore'. Below the commit history is a light blue box with the text 'Add a README with an overview of your project.' and a green 'Add a README' button. On the right side of the page, the 'About' section describes the repository as 'A demo repository.' and lists statistics: '0 stars', '1 watching', and '0 forks'. Below the 'About' section are sections for 'Releases' (No releases published, with a link to 'Create a new release') and 'Packages' (No packages published, with a link to 'Publish your first package').

jeanfeydy / git_tutorial Private

Unwatch 1 Fork 0 Star 0

<> Code Issues Pull requests Actions Projects Security Insights Settings

main 1 branch 0 tags

Go to file Add file <> Code

jeanfeydy Initial commit dfdcbb7 now 1 commit

.gitignore Initial commit now

Add a README with an overview of your project. Add a README

About

A demo repository.

Activity

0 stars

1 watching

0 forks

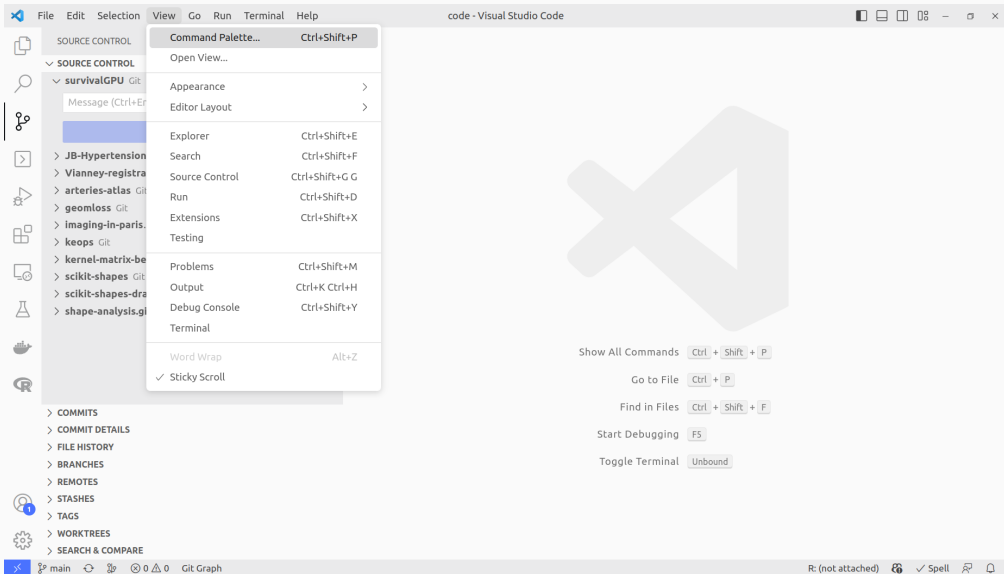
Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

Create a local copy (*clone*) using e.g. VSCode



The screenshot shows the Visual Studio Code interface. The Command Palette is open, displaying a list of commands. The 'Sticky Scroll' option is checked at the bottom. The background shows the Explorer view with a list of files and folders, including 'JB-Hypertension', 'Vianney-registra', 'arteries-atlas', 'geomloss', 'imaging-in-paris', 'keops', 'kernel-matrix-be', 'scikit-shapes', 'scikit-shapes-dra', and 'shape-analysis.gi'. The bottom status bar shows 'main', '0 0 0', and 'Git Graph'.

code - Visual Studio Code

Command Palette... Ctrl+Shift+P

Open View...

Appearance >

Editor Layout >

Explorer Ctrl+Shift+E

Search Ctrl+Shift+F

Source Control Ctrl+Shift+G G

Run Ctrl+Shift+D

Extensions Ctrl+Shift+X

Testing

Problems Ctrl+Shift+M

Output Ctrl+K Ctrl+H

Debug Console Ctrl+Shift+Y

Terminal

Word Wrap Alt+Z

✓ Sticky Scroll

Show All Commands Ctrl + Shift + P

Go to File Ctrl + P

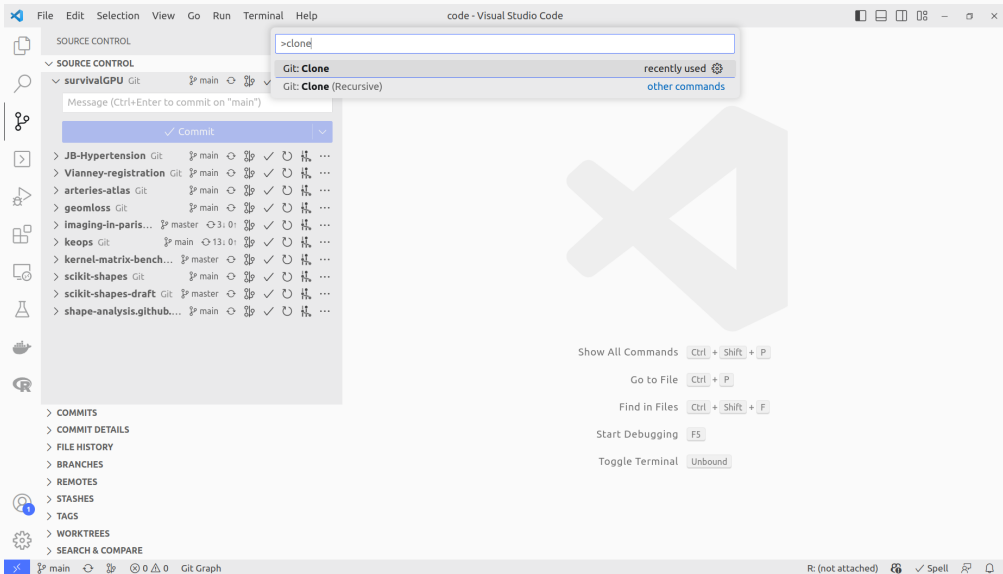
Find in Files Ctrl + Shift + F

Start Debugging F5

Toggle Terminal Unbound

R: (not attached) ✓ Spell

Create a local copy (*clone*) using e.g. VSCode



The screenshot shows the Visual Studio Code interface with the Source Control panel open. A search bar at the top of the panel contains the text ">clone". Below the search bar, a dropdown menu shows two results: "Git: Clone" (marked as "recently used") and "Git: Clone (Recursive)". The main area of the Source Control panel displays a list of repositories, each with a status icon, a branch name, and a commit hash. The repositories listed are:

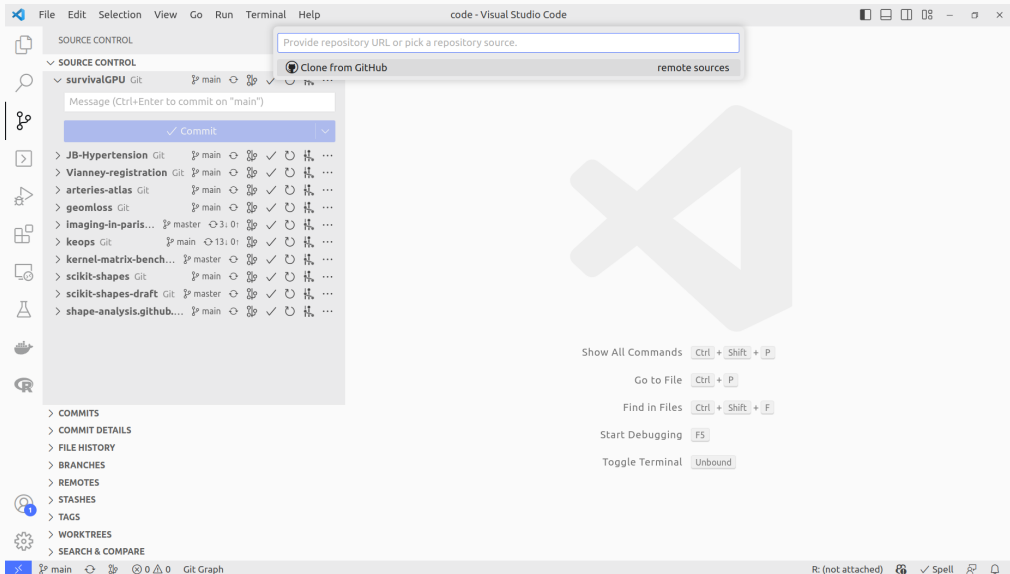
- JB-Hypertension
- Vianney-registration
- arteries-atlas
- geomloss
- imaging-in-paris...
- keops
- kernel-matrix-bench...
- scikit-shapes
- scikit-shapes-draft
- shape-analysis.github...

On the right side of the image, a large, faint, stylized 'X' logo is visible. Below the logo, a list of commands and their shortcuts is displayed:

- Show All Commands: `Ctrl + Shift + P`
- Go to File: `Ctrl + P`
- Find in Files: `Ctrl + Shift + F`
- Start Debugging: `F5`
- Toggle Terminal: `Unbound`

The bottom status bar shows the current branch as "main" and the Git Graph view.

Create a local copy (*clone*) using e.g. VSCode



The screenshot shows the Visual Studio Code interface with the Source Control view open on the left. A 'Clone from GitHub' dialog is displayed in the center, prompting the user to 'Provide repository URL or pick a repository source.' The dialog has a text input field and a 'remote sources' button. The Source Control view shows a list of repositories, including 'JB-Hypertension', 'Vianney-registration', 'arteries-atlas', 'geomloss', 'imaging-in-paris...', 'keops', 'kernel-matrix-bench...', 'scikit-shapes', 'scikit-shapes-draft', and 'shape-analysis.github...'. The 'Commit' button is visible in the Source Control view. The bottom status bar shows 'R: (not attached)' and 'Spell'.

code - Visual Studio Code

File Edit Selection View Go Run Terminal Help

SOURCE CONTROL

▼ SOURCE CONTROL

▼ survivalGPU Git

Message (Ctrl+Enter to commit on "main")

✓ Commit

> JB-Hypertension Git

> Vianney-registration Git

> arteries-atlas Git

> geomloss Git

> imaging-in-paris... master 3: 0: 0

> keops Git main 13: 0: 0

> kernel-matrix-bench... master

> scikit-shapes Git main

> scikit-shapes-draft Git master

> shape-analysis.github... main

> COMMITS

> COMMIT DETAILS

> FILE HISTORY

> BRANCHES

> REMOTES

> STASHES

> TAGS

> WORKTREES

> SEARCH & COMPARE

main 0 0 0 Git Graph

Provide repository URL or pick a repository source.

Clone from GitHub

remote sources

Show All Commands **Ctrl + Shift + P**

Go to File **Ctrl + P**

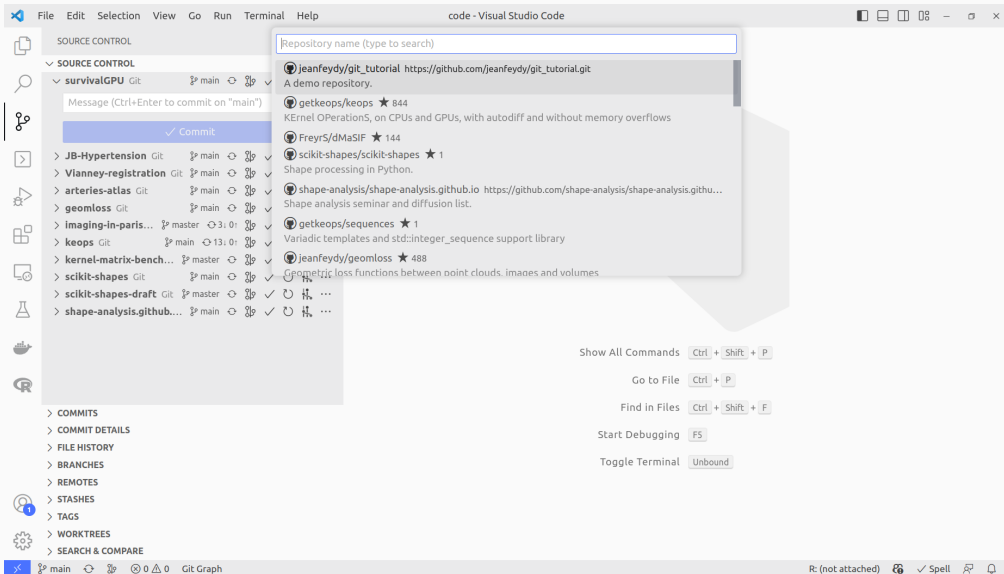
Find in Files **Ctrl + Shift + F**

Start Debugging **F5**

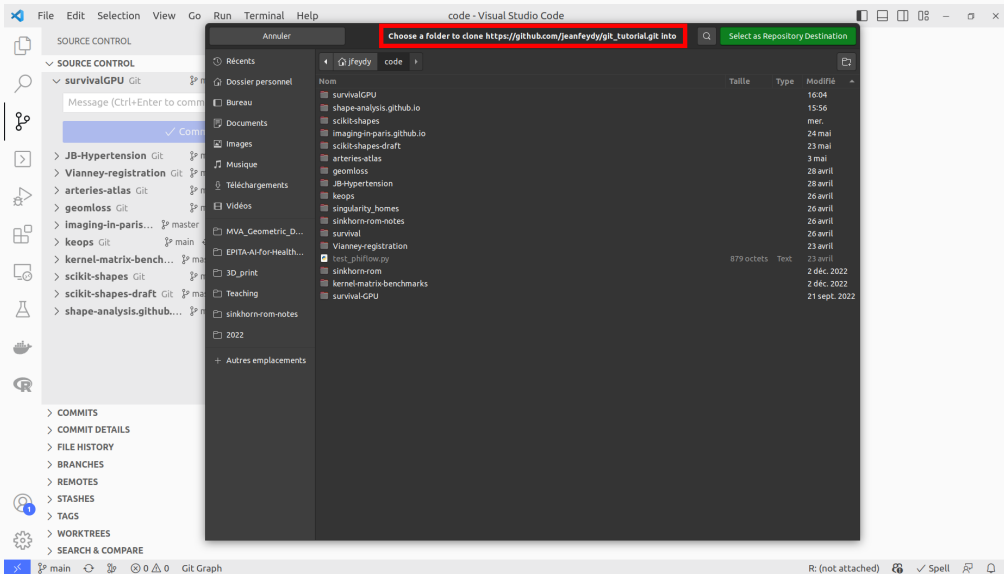
Toggle Terminal **Unbound**

R: (not attached) Spell

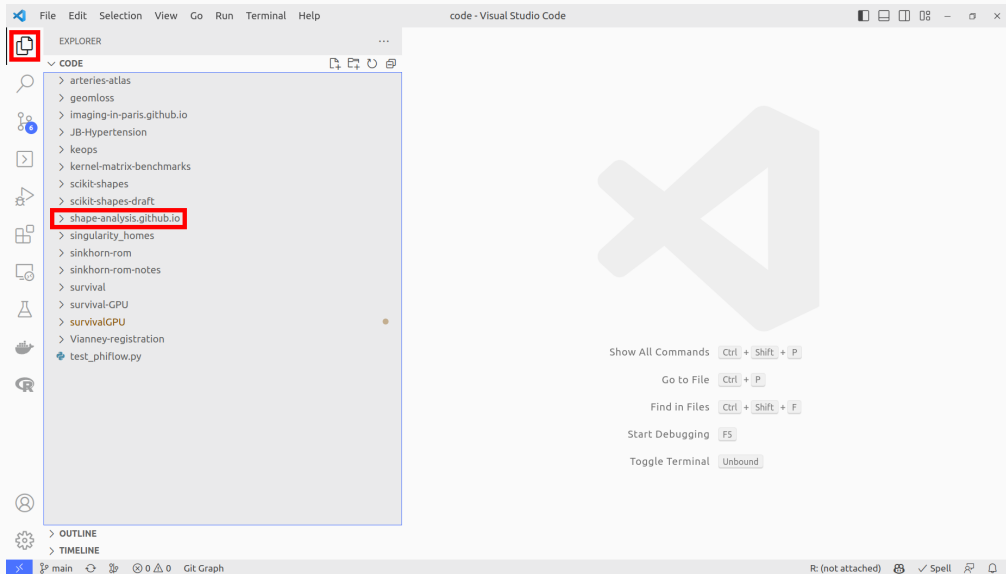
Create a local copy (clone) using e.g. VSCode



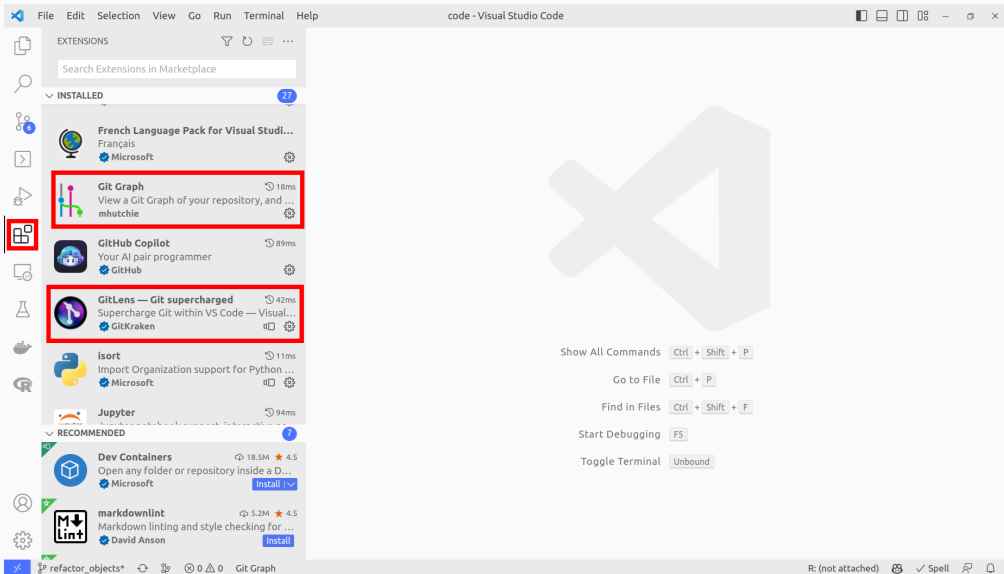
Create a local copy (clone) using e.g. VSCode



A typical Git workflow



Interact with Git using GitKraken or a VSCode plugin



The screenshot shows the Visual Studio Code interface with the Extensions Marketplace open. The left sidebar contains icons for Explorer, Search, Source Control, Run and Debug, and Extensions. The Extensions view is active, showing a list of installed and recommended extensions. Two extensions are highlighted with red rectangles: **Git Graph** by mhutchie and **GitLens — Git supercharged** by GitKraken. The **GitLens** extension is also marked as 'Recommended'.

EXTENSIONS

Search Extensions in Marketplace

INSTALLED (27)

- French Language Pack for Visual Studi...**
Français
Microsoft
- Git Graph**
View a Git Graph of your repository, and ...
mhutchie
- GitHub Copilot**
Your AI pair programmer
GitHub
- GitLens — Git supercharged**
Supercharge Git within VS Code — Visual...
GitKraken
- isort**
Import Organization support for Python ...
Microsoft
- Jupyter**

RECOMMENDED (7)

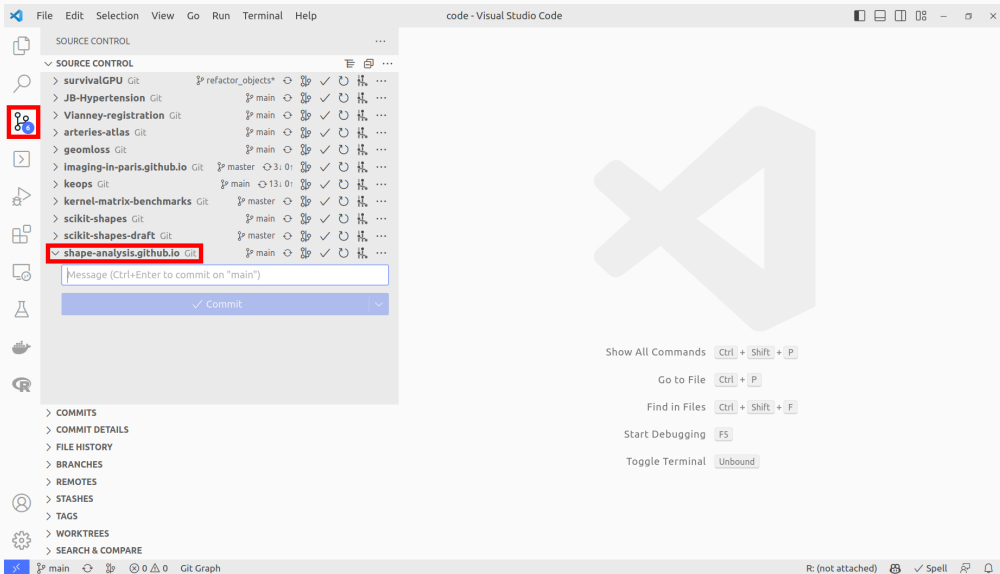
- Dev Containers**
Open any folder or repository inside a D...
Microsoft
- markdownlint**
Markdown linting and style checking for ...
David Anson

Commands:

- Show All Commands: `Ctrl + Shift + P`
- Go to File: `Ctrl + P`
- Find in Files: `Ctrl + Shift + F`
- Start Debugging: `F5`
- Toggle Terminal: Unbound

Status Bar: refactor_objects* | 0 0 0 | Git Graph | R: (not attached) | Spell

My current Git repositories



The screenshot shows the Visual Studio Code interface with the Source Control panel on the left. The panel lists several Git repositories, with 'shape-analysis.github.io' selected and highlighted by a red box. Below the list, a commit message input field and a 'Commit' button are visible. The right side of the image shows a large, faint, stylized 'X' logo. Below the logo, a list of commands and their shortcuts is displayed:

- Show All Commands: `Ctrl + Shift + P`
- Go to File: `Ctrl + P`
- Find in Files: `Ctrl + Shift + F`
- Start Debugging: `F5`
- Toggle Terminal: `Unbound`

The bottom status bar shows the current branch as 'main' and the file as 'R: (not attached)'.

The Git Lens view

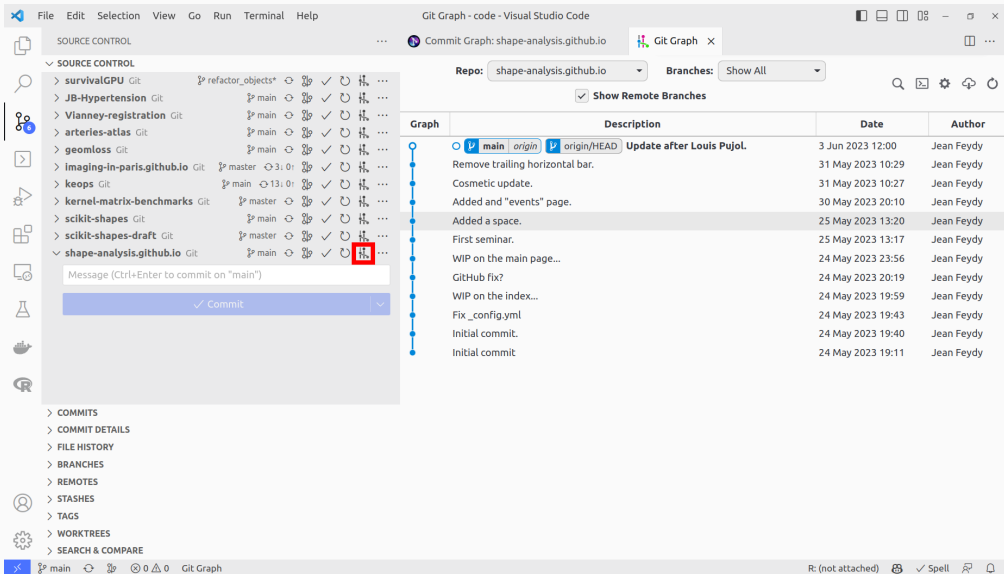
The screenshot displays the Git Lens view in Visual Studio Code. The interface is divided into three main sections:

- Left Panel (Source Control):** Lists repositories under 'SOURCE CONTROL'. The repository 'shape-analysis.github.io' is selected, and its 'main' branch is highlighted. Below the list, there is a text input for the commit message and a 'Commit' button.
- Center Panel (Commit Graph):** Shows a visual representation of the commit history for the 'main' branch. The graph shows a sequence of commits, with the most recent one at the top.
- Right Panel (Commit Details):** Displays a table of commit details for the selected branch.

Commit Details Table:

| BRANCH / TAG | GRAPH | COMMIT MESSAGE | AUTHOR | COMMIT DATE / TIME |
|--------------|-------|---------------------------------|--------|---------------------|
| main | | Update after Louis Pujol. | You | il y a 4 heures |
| | | Remove trailing horizontal bar. | You | il y a 3 jours |
| | | Cosmetic update. | You | il y a 3 jours |
| | | Added and "events" page. | You | il y a 4 jours |
| | | Added a space. | You | la semaine dernière |
| | | First seminar. | You | la semaine dernière |
| | | WIP on the main page... | You | la semaine dernière |
| | | GitHub fix? | You | la semaine dernière |
| | | WIP on the index... | You | la semaine dernière |
| | | Fix _config.yml | You | la semaine dernière |
| | | Initial commit. | You | la semaine dernière |
| | | Initial commit | You | la semaine dernière |
















The Git Graph view – basically the same thing!



Git Graph - code - Visual Studio Code

Repo: shape-analysis.github.io Branches: Show All

☒ Show Remote Branches

| Graph | Description | Date | Author |
|---|---------------------------------|-------------------|------------|
|   main  origin  origin/HEAD | Update after Louis Pujol. | 3 Jun 2023 12:00 | Jean Feydy |
|  | Remove trailing horizontal bar. | 31 May 2023 10:29 | Jean Feydy |
|  | Cosmetic update. | 31 May 2023 10:27 | Jean Feydy |
|  | Added and "events" page. | 30 May 2023 20:10 | Jean Feydy |
|  | Added a space. | 25 May 2023 13:20 | Jean Feydy |
|  | First seminar. | 25 May 2023 13:17 | Jean Feydy |
|  | WIP on the main page... | 24 May 2023 23:56 | Jean Feydy |
|  | GitHub fix? | 24 May 2023 20:19 | Jean Feydy |
|  | WIP on the index... | 24 May 2023 19:59 | Jean Feydy |
|  | Fix_config.yml | 24 May 2023 19:43 | Jean Feydy |
|  | Initial commit. | 24 May 2023 19:40 | Jean Feydy |
|  | Initial commit | 24 May 2023 19:11 | Jean Feydy |

Message (Ctrl+Enter to commit on "main")

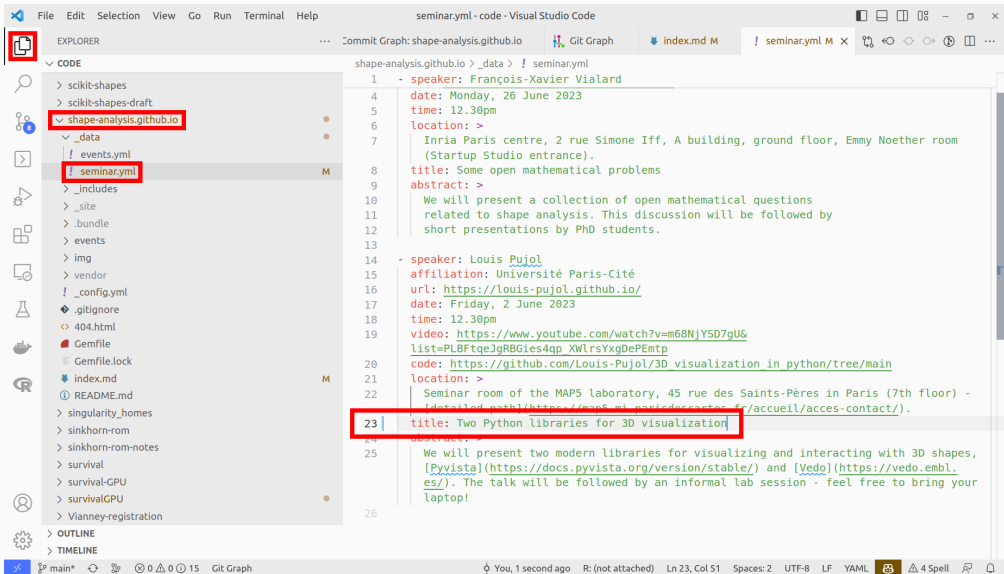
☒ Commit

COMMITTS
COMMIT DETAILS
FILE HISTORY
BRANCHES
REMOTES
STASHES
TAGS
WORKTREES
SEARCH & COMPARE

main 0 0 0 Git Graph

R: (not attached) Spell

Step 1: edit some file



Step 2: switch to the Git panel

The screenshot shows the Visual Studio Code interface with the Git panel on the left and a YAML file open in the editor.

Git Panel (Left):

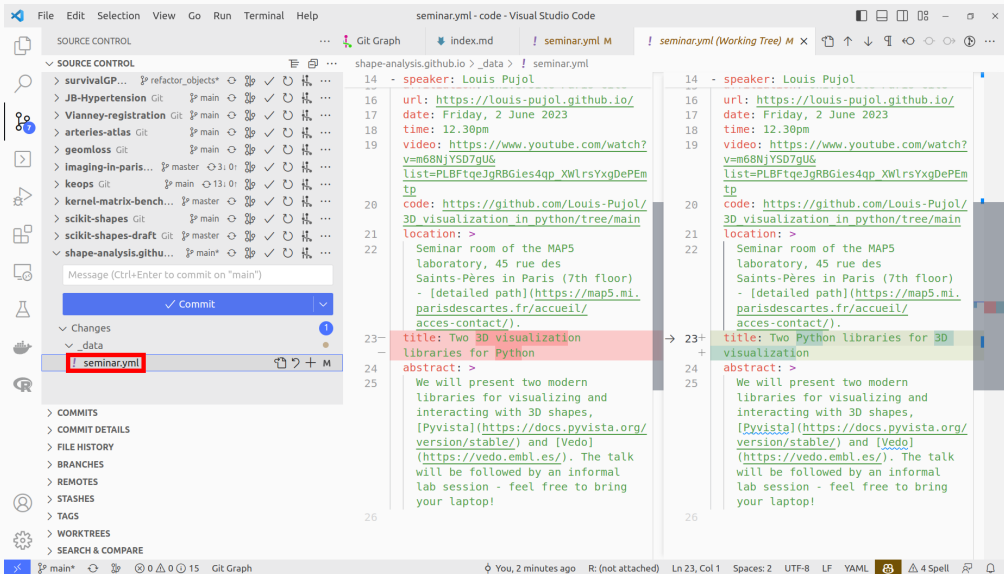
- The **SOURCE CONTROL** view is active, showing a list of repositories. The repository **shape-analysis.github.io** is selected.
- The **Changes** section shows a file named **seminar.yml** with a red exclamation mark icon, indicating it is staged for commit.
- The **Commit** button is highlighted with a red box.

Editor (Right):

The file **seminar.yml** is open, showing a list of seminar topics. The content is as follows:

```
1 - speaker: François-Xavier Vialard
4 date: Monday, 26 June 2023
5 time: 12.30pm
6 location: >
7   Inria Paris centre, 2 rue Simone Iff, A building, ground floor, Emmy Noether room
   (Startup Studio entrance).
8 title: Some open mathematical problems
9 abstract: >
10  We will present a collection of open mathematical questions
11  related to shape analysis. This discussion will be followed by
12  short presentations by PhD students.
13
14 - speaker: Louis Pujol
15 affiliation: Université Paris-Cité
16 url: https://louis-pujol.github.io/
17 date: Friday, 2 June 2023
18 time: 12.30pm
19 video: https://www.youtube.com/watch?v=m68NjYSD7gU&
20 list=PLBFTqeJgRBGies4qp_XWlrsYxgDePEmp
21 code: https://github.com/Louis-Pujol/3D_visualization_in_python/tree/main
22 location: >
23  Seminar room of the MAP5 laboratory, 45 rue des Saints-Pères in Paris (7th floor) -
24  [detailed path](https://map5.mi.parisdescartes.fr/accueil/acces-contact/).
25 title: Two Python libraries for 3D visualization
26 abstract: >
27  We will present two modern libraries for visualizing and interacting with 3D shapes,
28  [Pyvista](https://docs.pyvista.org/version/stable/) and [Vedo](https://vedo.embl.
29  es/). The talk will be followed by an informal lab session - feel free to bring your
30  laptop!
```


Step 3: check your modifications

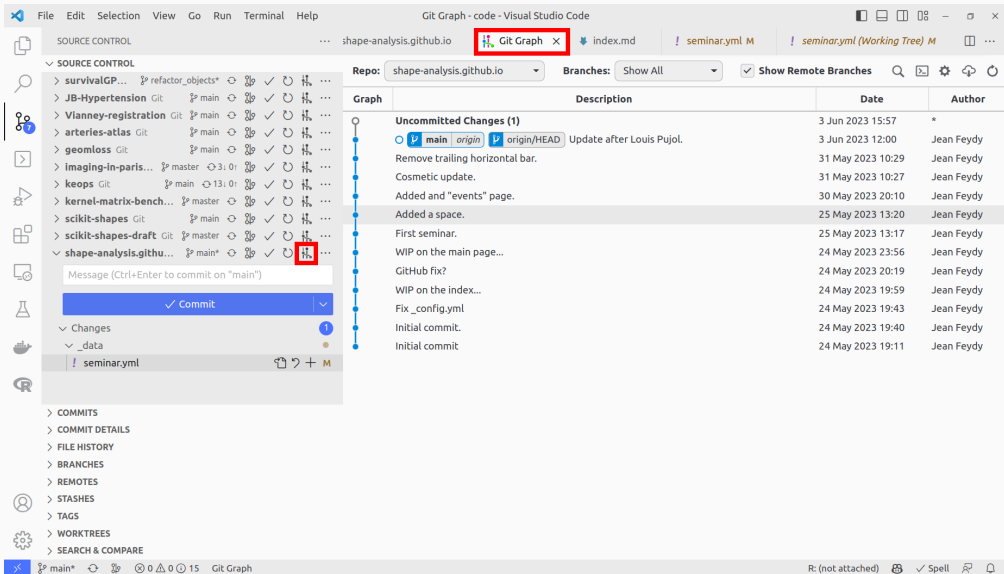


The screenshot displays the Visual Studio Code interface with the 'seminar.yml' file open in the 'Working Tree' and the 'Source Control' panel on the left. The file content is as follows:

```
14 - speaker: Louis Pujol
16 url: https://louis-pujol.github.io/
17 date: Friday, 2 June 2023
18 time: 12.30pm
19 video: https://www.youtube.com/watch?v=m68NjYSD7gU&list=PLBFtqeJgRBGies4qp\_XWlrsYxgDePEmtp
20 code: https://github.com/Louis-Pujol/3D-visualization-in-python/tree/main
21 location: >
22 Seminar room of the MAP5
   laboratory, 45 rue des
   Saints-Pères in Paris (7th floor)
   - [detailed path](https://map5.mi.parisdescartes.fr/accueil/acces-contact/).
23+ title: Two Python libraries for 3D
+ visualization
24 abstract: >
25 We will present two modern
   libraries for visualizing and
   interacting with 3D shapes,
   [Pyvista](https://docs.pyvista.org/version/stable/) and [Vedo]
   (https://vedo.embl.es/). The talk
   will be followed by an informal
   lab session - feel free to bring
   your laptop!
```

The 'Source Control' panel on the left shows the file 'seminar.yml' is staged for commit. The commit message field is empty, and the 'Commit' button is visible.

Step 4: look at the graph history



The screenshot shows the Visual Studio Code interface with the Git Graph extension. The top bar shows the 'Git Graph' tab is active. The left sidebar shows the 'SOURCE CONTROL' view with a list of repositories. The main area displays the 'Git Graph' for the 'shape-analysis.github.io' repository, showing a commit history graph and a table of commits.

Repo: shape-analysis.github.io **Branches:** Show All ☒ Show Remote Branches

| Graph | Description | Date | Author |
|--|---------------------------------|-------------------|------------|
| Uncommitted Changes (1) | | | |
| main origin origin/HEAD | Update after Louis Pujol. | 3 Jun 2023 15:57 | * |
| | Remove trailing horizontal bar. | 31 May 2023 10:29 | Jean Feydy |
| | Cosmetic update. | 31 May 2023 10:27 | Jean Feydy |
| | Added and "events" page. | 30 May 2023 20:10 | Jean Feydy |
| | Added a space. | 25 May 2023 13:20 | Jean Feydy |
| | First seminar. | 25 May 2023 13:17 | Jean Feydy |
| | WIP on the main page... | 24 May 2023 23:56 | Jean Feydy |
| | GitHub fix? | 24 May 2023 20:19 | Jean Feydy |
| | WIP on the index... | 24 May 2023 19:59 | Jean Feydy |
| | Fix _config.yml | 24 May 2023 19:43 | Jean Feydy |
| | Initial commit. | 24 May 2023 19:40 | Jean Feydy |
| | Initial commit | 24 May 2023 19:11 | Jean Feydy |

Step 5: give a name to your modification and *commit*

The screenshot shows the Visual Studio Code interface with the Git extension. The left sidebar contains the 'SOURCE CONTROL' view, which lists several repositories. The 'shape-analysis.github.io' repository is selected, and the 'seminar.yml' file is highlighted. A red box highlights the 'Commit' button in the 'Changes' section. The main editor area shows the 'Git Graph' view, which displays a list of commits. A red box highlights the 'Uncommitted Changes (1)' section, which shows the current changes to the 'seminar.yml' file. The status bar at the bottom indicates that the file is in the 'main' branch and is not attached to a remote.

Repo: shape-analysis.github.io Branches: Show All ☒ Show Remote Branches

| Graph | Description | Date | Author |
|--|---------------------------------|-------------------|------------|
| Uncommitted Changes (1) | | | |
| <input checked="" type="radio"/> main <input checked="" type="radio"/> origin <input checked="" type="radio"/> origin/HEAD | Update after Louis Pujol. | 3 Jun 2023 15:57 | * |
| | Remove trailing horizontal bar. | 31 May 2023 10:29 | Jean Feydy |
| | Cosmetic update. | 31 May 2023 10:27 | Jean Feydy |
| | Added and "events" page. | 30 May 2023 20:10 | Jean Feydy |
| | Added a space. | 25 May 2023 13:20 | Jean Feydy |
| | First seminar. | 25 May 2023 13:17 | Jean Feydy |
| | WIP on the main page... | 24 May 2023 23:56 | Jean Feydy |
| | GitHub fix? | 24 May 2023 20:19 | Jean Feydy |
| | WIP on the index... | 24 May 2023 19:59 | Jean Feydy |
| | Fix _config.yml | 24 May 2023 19:43 | Jean Feydy |
| | Initial commit. | 24 May 2023 19:40 | Jean Feydy |
| | Initial commit | 24 May 2023 19:11 | Jean Feydy |

Commit message: Edit Louis' title.

☒ Commit

COMMITMENTS
COMMIT DETAILS
FILE HISTORY
BRANCHES
REMOTES
STASHES
TAGS
WORKTREES
SEARCH & COMPARE

main* 0 15 Git Graph R: (not attached) Spell

Step 7: synchronize your local version with the GitHub cloud

The screenshot shows the Visual Studio Code interface with the Git Graph extension. The left sidebar displays the 'SOURCE CONTROL' view, listing various repositories. The main area shows the 'Git Graph' view for the repository 'shape-analysis.github.io'. The 'main' branch is selected, and the commit history is displayed in a table. The 'Sync Changes' button is highlighted with a red box.

Repo: shape-analysis.github.io **Branches:** Show All ☒ Show Remote Branches

| Graph | Description | Date | Author |
|-------------|---------------------------------|-------------------|------------|
| main | Edit Louis' title. | 3 Jun 2023 15:58 | Jean Feydy |
| origin/HEAD | Update after Louis Pujol. | 3 Jun 2023 12:00 | Jean Feydy |
| origin/main | Update after Louis Pujol. | 3 Jun 2023 12:00 | Jean Feydy |
| | Remove trailing horizontal bar. | 31 May 2023 10:29 | Jean Feydy |
| | Cosmetic update. | 31 May 2023 10:27 | Jean Feydy |
| | Added and "events" page. | 30 May 2023 20:10 | Jean Feydy |
| | Added a space. | 25 May 2023 13:20 | Jean Feydy |
| | First seminar. | 25 May 2023 13:17 | Jean Feydy |
| | WIP on the main page... | 24 May 2023 23:56 | Jean Feydy |
| | GitHub fix? | 24 May 2023 20:19 | Jean Feydy |
| | WIP on the index... | 24 May 2023 19:59 | Jean Feydy |
| | Fix _config.yml | 24 May 2023 19:43 | Jean Feydy |
| | Initial commit. | 24 May 2023 19:40 | Jean Feydy |
| | Initial commit | 24 May 2023 19:11 | Jean Feydy |

Message (Ctrl+Enter to commit on "main")

Sync Changes 1 ↑

Step 8: done!

The screenshot displays the Visual Studio Code interface with the Git Graph extension. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. The title bar shows 'Git Graph - code - Visual Studio Code'. The left sidebar contains icons for Explorer, Search, Source Control, Run and Debug, Extensions, Testing, Docker, and Remote Explorer. The Source Control panel is active, showing a list of repositories under 'SOURCE CONTROL'. The 'shape-analysis.github.io' repository is selected, and its commit history is displayed in the Git Graph view. The commit history table has columns for Graph, Description, Date, and Author. The top commit is 'Edit Louis' title.' by Jean Feydy on 3 Jun 2023. The bottom commit is 'Initial commit' by Jean Feydy on 24 May 2023. The bottom status bar shows 'main' branch, 0 changes, 0 errors, 0 warnings, 15 lines, and the Git Graph icon.

File Edit Selection View Go Run Terminal Help

Git Graph - code - Visual Studio Code

... aph: shape-analysis.github.io Git Graph index.md seminar.yml seminar.yml (Working Tree)

SOURCE CONTROL

survivalGP... refactor_objects* main ✓ 15:58

JB-Hypertension Git main ✓ 12:00

Vianney-registration Git main ✓ 10:29

arteries-atlas Git main ✓ 10:27

geomloss Git main ✓ 20:10

imaging-in-paris... master 3: 0: ✓ 13:17

keops Git main 13: 0: ✓ 23:56

kernel-matrix-bench... master ✓ 20:19

scikit-shapes Git main ✓ 19:43

scikit-shapes-draft Git master ✓ 19:40

shape-analysis.github.io... main ✓ 19:11

Message (Ctrl+Enter to commit on "main")

✓ Commit

COMMITTS

COMMIT DETAILS

FILE HISTORY

BRANCHES

REMOTES

STASHES

TAGS

WORKTREES

SEARCH & COMPARE

Repo: shape-analysis.github.io Branches: Show All Show Remote Branches

| Graph | Description | Date | Author |
|-----------------------------|---------------------------------|-------------------|------------|
| main origin origin/HEAD | Edit Louis' title. | 3 Jun 2023 15:58 | Jean Feydy |
| | Update after Louis Pujol. | 3 Jun 2023 12:00 | Jean Feydy |
| | Remove trailing horizontal bar. | 31 May 2023 10:29 | Jean Feydy |
| | Cosmetic update. | 31 May 2023 10:27 | Jean Feydy |
| | Added and "events" page. | 30 May 2023 20:10 | Jean Feydy |
| | Added a space. | 25 May 2023 13:20 | Jean Feydy |
| | First seminar. | 25 May 2023 13:17 | Jean Feydy |
| | WIP on the main page... | 24 May 2023 23:56 | Jean Feydy |
| | GitHub fix? | 24 May 2023 20:19 | Jean Feydy |
| | WIP on the index... | 24 May 2023 19:59 | Jean Feydy |
| | Fix _config.yml | 24 May 2023 19:43 | Jean Feydy |
| | Initial commit. | 24 May 2023 19:40 | Jean Feydy |
| | Initial commit | 24 May 2023 19:11 | Jean Feydy |

main 0 0 15 Git Graph

R: (not attached) ✓ Spell

Step 9: check online

shape-analysis/shape-analysis.github.io

Public

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags

Go to file Add file <> Code

jeanfeydy Edit Louis' title. 85856fa 2 minutes ago 13 commits

| | | |
|--------------|---------------------------------|---------------|
| _data | Edit Louis' title. | 2 minutes ago |
| _includes | Added and "events" page. | 4 days ago |
| events | Remove trailing horizontal bar. | 3 days ago |
| img | Cosmetic update. | 3 days ago |
| .gitignore | Initial commit | last week |
| 404.html | Initial commit. | last week |
| Gemfile | WIP on the index... | last week |
| Gemfile.lock | WIP on the index... | last week |
| README.md | Added and "events" page. | 4 days ago |
| _config.yml | First seminar. | last week |
| index.md | Update after Louis Pujol. | 4 hours ago |

About

Shape analysis seminar and diffusion list.

Readme Activity 0 stars 1 watching 0 forks Report repository

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

Step 9: check online

The screenshot shows the GitHub web interface for the repository `shape-analysis`. The browser address bar shows the URL `https://github.com/shape-analysis/shape-analysis.github.io/commits/main`. The repository is public and has 0 stars and 0 forks. The `Code` tab is selected, showing a list of commits on the `main` branch.

Commits

main

Commits on Jun 3, 2023

- Edit Louis' title.**
jeanfedy committed 3 minutes ago ✓
Commit hash: `85856fa`
- Update after Louis Pujol.**
jeanfedy committed 4 hours ago ✓
Commit hash: `b10e4dc`

Commits on May 31, 2023

- Remove trailing horizontal bar.**
jeanfedy committed 3 days ago ✓
Commit hash: `6592b3d`
- Cosmetic update.**
jeanfedy committed 3 days ago ✓
Commit hash: `b349a5d`

Commits on May 30, 2023

- Added and "events" page.**
Commit hash: `d6f4470`

Git allows you to collaborate *asynchronously*

Git Graph - code - Visual Studio Code

SOURCE CONTROL

- survivalGPU Git
- JB-Hypertension Git
- Vianney-registration Git
- arteries-atlas Git
- geomloss Git
- imaging-in-paris... Git
- keops Git
- kernel-matrix-bench... Git
- scikit-shapes Git
- scikit-shapes-draft Git
- shape-analysis.github... Git

COMMIT DETAILS

FILE HISTORY

BRANCHES

REMOTES

STASHES

TAGS

WORKTREES

SEARCH & COMPARE

Git Graph

Merge remote-tracking branch 'origin/main' into hazard_ratios

Apply styler

WIP coxPH

Added hazard ratios.

WIP on creating python objects.

Added instruction to run the tests in the Readme.

Started to include a real "pytest".

Applied styler with token modification.

Applied styler.

Small fix.

Merge remote-tracking branch 'origin/main'

Added the Rmd benchmarks.

Merge remote-tracking branch 'refs/remotes/origin/main' into...

Update survivalGPU help

Black linting.

Restructured the python folder.

Removed local copy of inst/python/...

First cleanup of the Python code...

Add URL in Description

update doc

R survivalGPU on git - R CMD Check OK

first commit from R

Create recoucou.txt

Delete coucou.txt

Created a R folder.

Merged the gitignore.

Initial commit

16 Feb 2023 11:51 Alexis-vs a9826385

16 Feb 2023 11:39 Alexis-vs e653eaad

16 Feb 2023 11:23 Alexis-vs 5980927c

16 Feb 2023 11:19 Alexis-vs 405caa66

12 Feb 2023 21:25 Jean Feydy 4470fda8

12 Feb 2023 15:03 Jean Feydy e982047e

8 Feb 2023 00:52 Jean Feydy 2a5a8193

8 Feb 2023 00:18 Jean Feydy 58b82d2b

8 Feb 2023 00:06 Jean Feydy 47558fee

8 Feb 2023 00:02 Jean Feydy cf90b683

7 Feb 2023 18:51 Jean Feydy 108f8b46

7 Feb 2023 18:51 Jean Feydy 5cc42d33

7 Feb 2023 18:25 Alexis-vs bc5a0a7b

7 Feb 2023 13:42 Alexis-vs 07124b41

7 Feb 2023 00:01 Jean Feydy 21ecd975

7 Feb 2023 00:00 Jean Feydy 79154859

6 Feb 2023 23:45 Jean Feydy b1a91bbd

6 Feb 2023 23:35 Jean Feydy 22ce5d48

3 Feb 2023 03:15 Alexis-vs aaaa76b4

3 Feb 2023 03:11 Alexis-vs 243e8e9b

2 Feb 2023 04:31 Alexis-vs 8ac2b3f9

31 Jan 2023 16:46 Alexis-vs 3a345709

31 Jan 2023 16:20 Alexis van STRAATEN 0b45b527

31 Jan 2023 15:00 Alexis van STRAATEN 995ca27f

31 Jan 2023 14:55 Jean Feydy 23d3c20e

31 Jan 2023 14:36 Jean Feydy 8018e8d6

31 Jan 2023 14:33 Jean Feydy a40c46e0

R: (not attached) Spell



























Development *branches* have names

The screenshot shows the Git Graph interface in Visual Studio Code. The interface is divided into three main sections: a sidebar on the left, a central commit list, and a table of commit details on the right.

Sidebar: The 'SOURCE CONTROL' panel is active, showing the 'survivalGPU' repository. The 'main' branch is selected. The 'Commit' button is visible.

Central Commit List: A list of commits is shown, including 'refactor_objects' (origin) and 'main' (origin). The 'refactor_objects' branch is highlighted in red.

Table of Commit Details: The table has columns: Graph, Description, Date, Author, and Com... (Commit hash). The 'refactor_objects' branch is highlighted in red.

| Graph | Description | Date | Author | Com... |
|---|---|-------------------|------------|----------|
|  refactor_objects  | WIP with the Breslow tests. | 3 Jun 2023 16:03 | Jean Feydy | 0f76c43d |
|  | Black linting. | 31 May 2023 16:59 | Jean Feydy | 8bce74ff |
|  | Updated Breslow. | 31 May 2023 16:58 | Jean Feydy | 2d30086e |
|  | Edit the Cox likelihood docstring. | 31 May 2023 16:04 | Jean Feydy | 64a46d0b |
|  | Added a codecov badge. | 20 May 2023 15:16 | Jean Feydy | 7dd77707 |
|  | Adding a cache for the CI. | 20 May 2023 14:48 | Jean Feydy | 312bb378 |
|  | Remove doctest-modules. | 20 May 2023 14:38 | Jean Feydy | aaf7fcec |
|  | Trying codecov... | 20 May 2023 13:29 | Jean Feydy | faa61614 |
|  | Adding dependencies to the CI... | 20 May 2023 12:11 | Jean Feydy | 05c6b448 |
|  | Ruff doesn't seem to like our types... | 20 May 2023 12:00 | Jean Feydy | 1099f2bf |
|  | Starting to batch the loglikelihood. | 20 May 2023 11:54 | Jean Feydy | d2b079cf |
|  | WIP on the negloglikelihood... | 3 May 2023 18:31 | Jean Feydy | 26d38270 |
|  | WIP on the CoxPH likelihood... | 2 May 2023 21:08 | Jean Feydy | f31b2019 |
|  | Improved the bootstrap test. | 2 May 2023 19:54 | Jean Feydy | 7f3eb29c |
|  | New test for the bootstraps. | 1 May 2023 20:34 | Jean Feydy | 571b7069 |
|  | Added support for batch and strata in the bootstraps. | 1 May 2023 16:41 | Jean Feydy | 32d9c537 |
|  | Improve the bootstrap test. | 1 May 2023 14:13 | Jean Feydy | 75f93065 |
|  | Added tests for the bootstraps. | 1 May 2023 13:29 | Jean Feydy | cd57a5f0 |
|  | WIP on the bootstraps... | 30 Apr 2023 19:45 | Jean Feydy | 4a45b1da |
|  main  origin  origin/HEAD | Minor fixes | 5 Apr 2023 15:29 | Alexis-vs | 9af74197 |
|  | Add tests from survival R package | 5 Apr 2023 14:49 | Alexis-vs | bfa65e1d |
|  | initial values option for Newton iterations | 5 Apr 2023 11:49 | Alexis-vs | 91380c77 |
|  | initial values option for newton iterations | 3 Apr 2023 17:51 | Alexis-vs | 60320c07 |

Right click on a commit to create a new branch

The screenshot shows the Visual Studio Code Git Graph interface. On the left, the 'SOURCE CONTROL' panel lists repositories, with 'survivalGPU' selected. The main area displays a commit history table. A right-click context menu is open over a commit, with 'Create Branch...' and 'Checkout...' highlighted by red boxes.

| Graph | Description | Date | Author | Com... |
|--------------------------------|---|-------------------|------------|----------|
| refactor_objects <i>origin</i> | WIP with the Breslow tests. | 3 Jun 2023 16:03 | Jean Feydy | 0f76c43d |
| | Black linting. | 31 May 2023 16:59 | Jean Feydy | 8bce74ff |
| | Updated Breslow. | 31 May 2023 16:58 | Jean Feydy | 2d30086e |
| | Edit the Cox likelihood docstring. | 31 May 2023 16:04 | Jean Feydy | 64a46d0b |
| | Added a codecov badge. | 20 May 2023 15:16 | Jean Feydy | 7dd77707 |
| | Adding a cache for the CI. | 20 May 2023 14:48 | Jean Feydy | 312bb378 |
| | Remove doctest-modules. | | lean Feydy | aaf7fcec |
| | Trying codecov... | | lean Feydy | faa61614 |
| | Adding dependencies to the CI... | | lean Feydy | 05c6b448 |
| | Ruff doesn't seem to like our types... | | lean Feydy | 1099f2bf |
| | Starting to batch the loglikelihood. | | lean Feydy | d2b079cf |
| | WIP on the negloglikelihood... | | lean Feydy | 26d38270 |
| | WIP on the CoxPH likelihood... | | lean Feydy | f31b2019 |
| | Improved the bootstrap test. | | lean Feydy | 7f3eb29c |
| | New test for the bootstraps. | | lean Feydy | 571b7069 |
| | Added support for batch and strata in the | | lean Feydy | 32d9c537 |
| | Improve the bootstrap test. | | lean Feydy | 75f93065 |
| | Added tests for the bootstraps. | | lean Feydy | cd57a5f0 |
| | WIP on the bootstraps... | | lean Feydy | 4a45b1da |
| | Add tests from survival R package | 5 Apr 2023 14:49 | Alexis-vs | 9af74197 |
| | initial values option for Newton iterations | 5 Apr 2023 11:49 | Alexis-vs | bfa65e1d |
| | iteration option for survival GPU | 3 Apr 2023 17:51 | Alexis-vs | 9b320c77 |

Context Menu Options:

- Add Tag...
- Create Branch...
- Checkout...
- Cherry Pick...
- Revert...
- Drop...
- Merge into current branch...
- Rebase current branch on this Commit...
- Reset current branch to this Commit...
- Copy Commit Hash to Clipboard
- Copy Commit Subject to Clipboard

Right click on a branch label to “check it out” or merge it

The screenshot shows the Visual Studio Code Git Graph interface. On the left, the 'SOURCE CONTROL' panel displays a list of branches under the 'survivalGPU' repository. The 'main' branch is selected. A right-click context menu is open over the 'main' branch label, showing options like 'Checkout Branch...', 'Delete Remote Branch...', 'Merge into current branch...', 'Pull into current branch...', 'Create Archive', 'Unselect in Branches Dropdown', and 'Copy Branch Name to Clipboard'. The 'Checkout Branch...' and 'Merge into current branch...' options are highlighted with red boxes.

The main panel displays a table of commits with the following columns: Graph, Description, Date, Author, and Com... (Commit Hash). The table lists several commits, including 'refactor_objects' (origin), 'Black linting.', 'Updated Breslow.', 'Edit the Cox likelihood docstring.', 'Added a codecov badge.', 'Adding a cache for the CI.', 'Remove doctest-modules.', 'Trying codecov...', 'Adding dependencies to the CI...', 'Ruff doesn't seem to like our types...', 'Starting to batch the loglikelihood.', 'WIP on the negloglikelihood', 'WIP on the CoxPH likelihood', 'Improved the bootstrap test', 'New test for the bootstrap test', 'Added support for batch a', 'Improve the bootstrap tes', 'Added tests for the boots', 'WIP on the bootstraps...', 'Add tests from survival R package', 'initial values option for Newton iterations', and 'iter maximization for covariates'.

| Graph | Description | Date | Author | Com... |
|--|---|-------------------|------------|-----------|
| refactor_objects <small>origin</small> | WIP with the Breslow tests. | 3 Jun 2023 16:03 | Jean Feydy | 0f76c43d |
| | Black linting. | 31 May 2023 16:59 | Jean Feydy | 8bce74ff |
| | Updated Breslow. | 31 May 2023 16:58 | Jean Feydy | 2d30086e |
| | Edit the Cox likelihood docstring. | 31 May 2023 16:04 | Jean Feydy | 64a46d0b |
| | Added a codecov badge. | 20 May 2023 15:16 | Jean Feydy | 7dd77707 |
| | Adding a cache for the CI. | 20 May 2023 14:48 | Jean Feydy | 312bb378 |
| | Remove doctest-modules. | 20 May 2023 14:38 | Jean Feydy | aaf77fcec |
| | Trying codecov... | 20 May 2023 13:29 | Jean Feydy | faa61614 |
| | Adding dependencies to the CI... | 20 May 2023 12:11 | Jean Feydy | 05c6b448 |
| | Ruff doesn't seem to like our types... | 20 May 2023 12:00 | Jean Feydy | 1099f2bf |
| | Starting to batch the loglikelihood. | 20 May 2023 11:54 | Jean Feydy | d2b079cf |
| | WIP on the negloglikelihood | 3 May 2023 18:31 | Jean Feydy | 26d38270 |
| | WIP on the CoxPH likelihood | 2 May 2023 21:08 | Jean Feydy | f31b2019 |
| | Improved the bootstrap test | 2 May 2023 19:54 | Jean Feydy | 7f3eb29c |
| | New test for the bootstrap | 1 May 2023 20:34 | Jean Feydy | 571b7069 |
| | Added support for batch a | 1 May 2023 16:41 | Jean Feydy | 32d9c537 |
| | Improve the bootstrap tes | 1 May 2023 14:13 | Jean Feydy | 75f93065 |
| | Added tests for the boots | 1 May 2023 13:29 | Jean Feydy | cd57a5f0 |
| | WIP on the bootstraps... | 30 Apr 2023 19:45 | Jean Feydy | 4a45b1da |
| main <small>origin</small> | | 5 Apr 2023 15:29 | Alexis-vs | 9af74197 |
| | Add tests from survival R package | 5 Apr 2023 14:49 | Alexis-vs | bfa65e1d |
| | initial values option for Newton iterations | 5 Apr 2023 11:49 | Alexis-vs | 91380c77 |
| | iter maximization for covariates | 3 Apr 2023 17:51 | Alexis-vs | 60320c07 |

Click on a commit to inspect changes

The screenshot displays the Visual Studio Code interface with the Git Graph extension. The left sidebar shows the 'SOURCE CONTROL' view with a list of repositories. The main area is divided into three panes: the left pane shows the commit history, the middle pane shows the commit details for the selected commit, and the right pane shows the file changes for the selected commit.

Commit Details:

- Repo: survivalGPU
- Branches: Show All
- Show Remote Branches: ☒
- Graph
- Description: refactor_objects origin WIP with the Breslow tests.
- Date: 3 Jun 2023 16:03
- Author: Jean Feydy
- Commit: 0f76c43d3299aa856001baa61e7ef8ba32436576
- Parents: 8bce74ff98187eb47d709b356047513a98461373
- Author: Jean Feydy <jean.feydy@gmail.com>
- Committer: Jean Feydy <jean.feydy@gmail.com>
- Date: Sat Jun 03 2023 16:03:33 GMT+0200 (heure d'été d'Europe centrale)
- WIP with the Breslow tests.

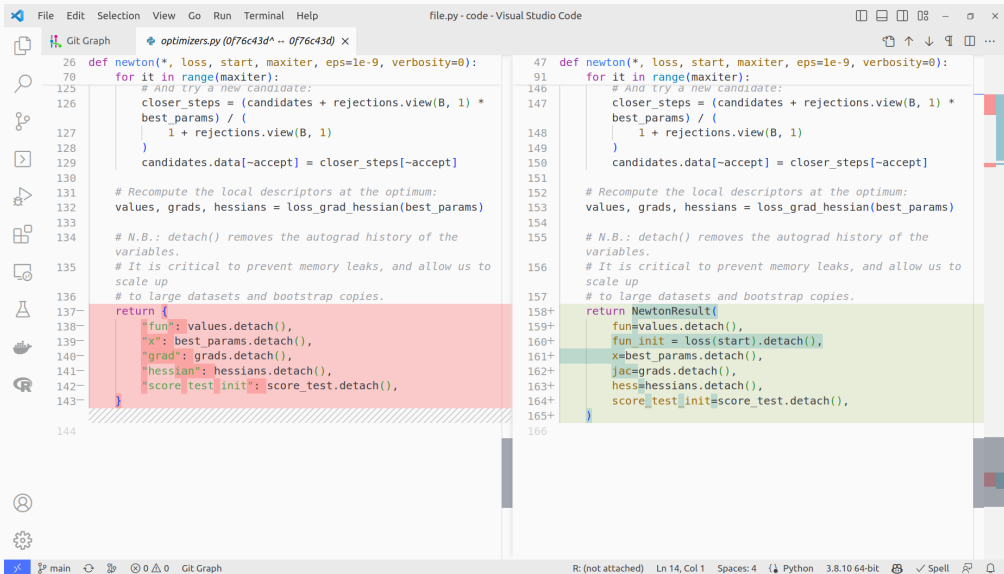
File Changes:

- python
- survivalgpu
 - coxph_likelihood.py (+19 | -22)
 - coxph.py (+55 | -9)
 - datasets.py (+38 | -0)
 - optimizers.py (+39 | -17)
- tests
 - test_sklearn_interface.py (+18 | -8)
 - test_small_examples.py (+23 | -22)

Commit History:

| Commit | Description | Date | Author | Commit |
|----------|--|-------------------|------------|----------|
| 8bce74ff | Black linting. | 31 May 2023 16:59 | Jean Feydy | 8bce74ff |
| 2d30086e | Updated Breslow. | 31 May 2023 16:58 | Jean Feydy | 2d30086e |
| 64a46d0b | Edit the Cox likelihood docstring. | 31 May 2023 16:04 | Jean Feydy | 64a46d0b |
| 7dd77707 | Added a codecov badge. | 20 May 2023 15:16 | Jean Feydy | 7dd77707 |
| 312bb378 | Adding a cache for the CI. | 20 May 2023 14:48 | Jean Feydy | 312bb378 |
| aaf7fcec | Remove doctest-modules. | 20 May 2023 14:38 | Jean Feydy | aaf7fcec |
| faa61614 | Trying codecov... | 20 May 2023 13:29 | Jean Feydy | faa61614 |
| 05c6b448 | Adding dependencies to the CI... | 20 May 2023 12:11 | Jean Feydy | 05c6b448 |
| 1099f2bf | Ruff doesn't seem to like our types... | 20 May 2023 12:00 | Jean Feydy | 1099f2bf |
| d2b079cf | Starting to batch the loglikelihood. | 20 May 2023 11:54 | Jean Feydy | d2b079cf |
| 26d38270 | WIP on the negloglikelihood... | 3 May 2023 18:31 | Jean Feydy | 26d38270 |

Diffs and roll-backs are very useful to debug!



```
26 def newton(*, loss, start, maxiter, eps=1e-9, verbosity=0):
70     for it in range(maxiter):
125         # And try a new candidate:
126         closer_steps = (candidates + rejections.view(B, 1) *
127                         best_params) / (
128             1 + rejections.view(B, 1)
129         )
130         candidates.data[~accept] = closer_steps[~accept]
131
132     # Recompute the local descriptors at the optimum:
133     values, grads, hessians = loss_grad_hessian(best_params)
134
135     # N.B.: detach() removes the autograd history of the
136     # variables.
137     # It is critical to prevent memory leaks, and allow us to
138     # scale up
139     # to large datasets and bootstrap copies.
140     return {
141         "fun": values.detach(),
142         "x": best_params.detach(),
143         "grad": grads.detach(),
144         "hessian": hessians.detach(),
145         "score_test_init": score_test.detach(),
146     }
147
47 def newton(*, loss, start, maxiter, eps=1e-9, verbosity=0):
91     for it in range(maxiter):
146         # And try a new candidate:
147         closer_steps = (candidates + rejections.view(B, 1) *
148                         best_params) / (
149             1 + rejections.view(B, 1)
150         )
151         candidates.data[~accept] = closer_steps[~accept]
152
153     # Recompute the local descriptors at the optimum:
154     values, grads, hessians = loss_grad_hessian(best_params)
155
156     # N.B.: detach() removes the autograd history of the
157     # variables.
158     # It is critical to prevent memory leaks, and allow us to
159     # scale up
160     # to large datasets and bootstrap copies.
161     return NewtonResult(
162         fun=values.detach(),
163         fun_init = loss(start).detach(),
164         x=best_params.detach(),
165         jac=grads.detach(),
166         hess=hessians.detach(),
167         score_test_init=score_test.detach(),
168     )
169
```

Create a personal webpage

Why should you care?

A personal webpage is:

- The standard “CV format” in mathematics and computer science.
- **Mandatory in academia** – ResearchGate or LinkedIn are *not* enough.
- **Helpful** to land a data science job.

Create a webpage **as soon as possible**:

- **Present** your projects without being constrained by a journal template.
- Help people **find** your slides, code, supplementary materials...
- Get referenced by Google **before** you're actively looking for a job.

Step 1: create a GitHub organization with the name of your future website

The screenshot shows the GitHub homepage in a web browser. The user is signed in as **jeanfeydy**. The main content area displays repositories for the user and others, including **kiharalab / DOVE** and **guanjq / targetdiff**. The right sidebar shows the 'Latest changes' and 'Explore repositories' sections. A dropdown menu is open in the top right corner, showing the user's profile and a list of links. The link **Your organizations** is highlighted with a red box.

Search or jump to...

Pull requests Issues Codespaces Marketplace Explore

Signed in as **jeanfeydy**

Top Repositories

Find a repository...

getkeops/keops

jeanfeydy/survival-GPU

jeanfeydy/EPITA-AI-for-Healthcare

jeanfeydy/arteries-atlas

jeanfeydy/survivalGPU

shape-analysis/shape-analysis.github.io

jeanfeydy/geomloss

Show more

Recent activity

When you take actions across GitHub, we'll provide links to that activity here.

For you (Beta) Following Send feedback Filter

wzm2256 starred a repository · 2 hours ago

kiharalab / DOVE

A Deep-learning based dOcking decoy eValuation mEthod

Python ☆ 53

hypnopump starred a repository · 5 hours ago

guanjq / targetdiff

The official implementation of 3D Equivariant Diffusion for Target-Aware Molecule Generation and Affinity Prediction (ICLR 2023)

Jupyter Notebook ☆ 62

Trending repositories · Show more

2004content / rarbg

Backup of magnets from RARBG

Python ☆ 1.5k

Latest changes

18 hours ago GitHub Action runners

2 days ago CodeQL code Swift (beta)

3 days ago View repository activity view

Last week 2023 Update Incident Plan

View changelog

Explore repositories

josipd / torc

A PyTorch library for

☆ 224 Jupyter

mmistakes / jekyll-theme-basically-basic

Your new jekyll default theme.

Set status

Your profile

Your repositories

Your organizations

Your projects

Your discussions

Your stars

Your gists

Your sponsors

Upgrade

Try Enterprise

Feature preview

Help

Settings

Sign out

<https://github.com/settings/organizations>

Step 1: create a GitHub organization that bears the name of your website

The screenshot shows the GitHub 'Organizations' settings page for the user 'Jean Feydy (jeanfeydy)'. The browser address bar shows 'https://github.com/settings/organizations'. The page has a dark header with the GitHub logo, a search bar, and navigation links: 'Pull requests', 'Issues', 'Codespaces', 'Marketplace', and 'Explore'. On the right of the header are notification, user, and language icons.

The main content area is titled 'Organizations' and features a 'New organization' button in the top right corner, which is highlighted with a red rectangle. Below this button is a list of organizations the user is a member of or owner of:

| Organization | Role | Compare plans | Settings | Leave |
|------------------------------|--|---------------|----------|-------|
| getkeeps | owner | Compare plans | Settings | Leave |
| kernel-matrix-benchmarks | owner | Compare plans | Settings | Leave |
| optimal-transport-benchmarks | owner | Compare plans | Settings | Leave |
| scikit-shapes | owner | Compare plans | Settings | Leave |
| shape-analysis | owner | Compare plans | Settings | Leave |
| uncbiag | outside collaborator on 2 repositories | | | Leave |

On the left side of the page is a sidebar with navigation links: 'Public profile', 'Account', 'Appearance', 'Accessibility', 'Notifications', 'Access', 'Billing and plans', 'Emails', 'Password and authentication', 'Sessions', 'SSH and GPG keys', 'Organizations' (which is highlighted with a blue bar), 'Moderation', 'Code, planning, and automation', 'Repositories', 'Codespaces', and 'Policies'.

Below the 'Organizations' list, there is a section titled 'Transform account' with the text: 'You cannot transform this account into an organization until you leave all organizations that you're a member of.' Below this text is a button that says 'Turn jeanfevdy into an organization'.

Step 1: create a GitHub organization that bears the name of your website

Choose a plan

Pick a plan for your organization

How often do you want to pay?

Monthly Yearly **Get 1 month free**

Free

The basics for individuals and organizations

\$0

per month forever

Create a free organization

- > Unlimited public/private repositories
- > Automatic security and version updates

MOST POPULAR

Team

Advanced collaboration for individuals and organizations

~~\$4~~ **\$3.67**

per user/month for the first 12 months*

Continue with Team

- < Everything included in Free, plus...

Enterprise

Security, compliance, and flexible deployment

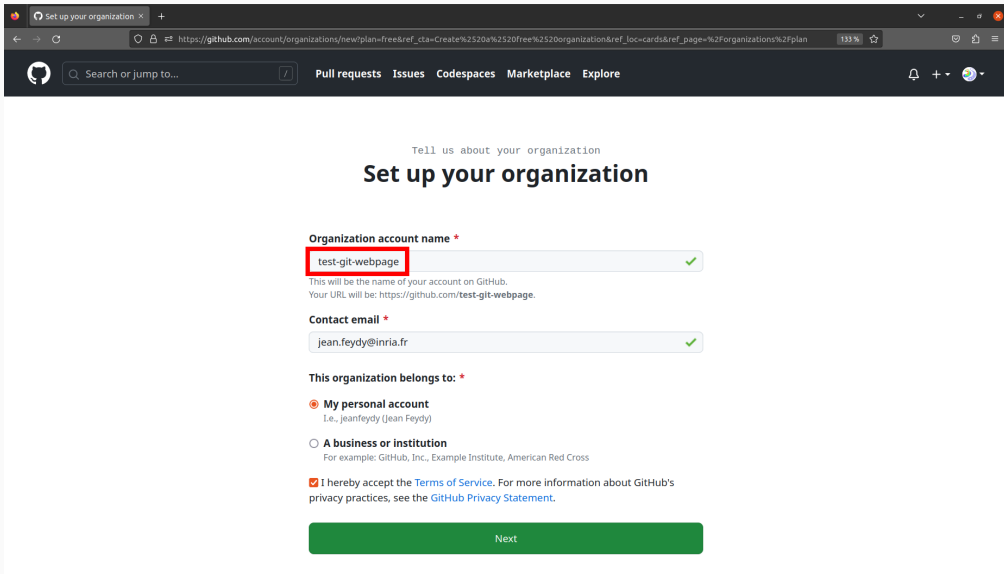
~~\$21~~ **\$19.25**

per user/month for the first 12 months*

Start a free trial **Contact Sales**

- < Everything included in Team, plus...

Step 1: create a GitHub organization that bears the name of your website



Set up your organization

Tell us about your organization

Set up your organization

Organization account name *

test-git-webpage ✓

This will be the name of your account on GitHub.
Your URL will be: <https://github.com/test-git-webpage>.

Contact email *

jean.feydy@inria.fr ✓

This organization belongs to: *

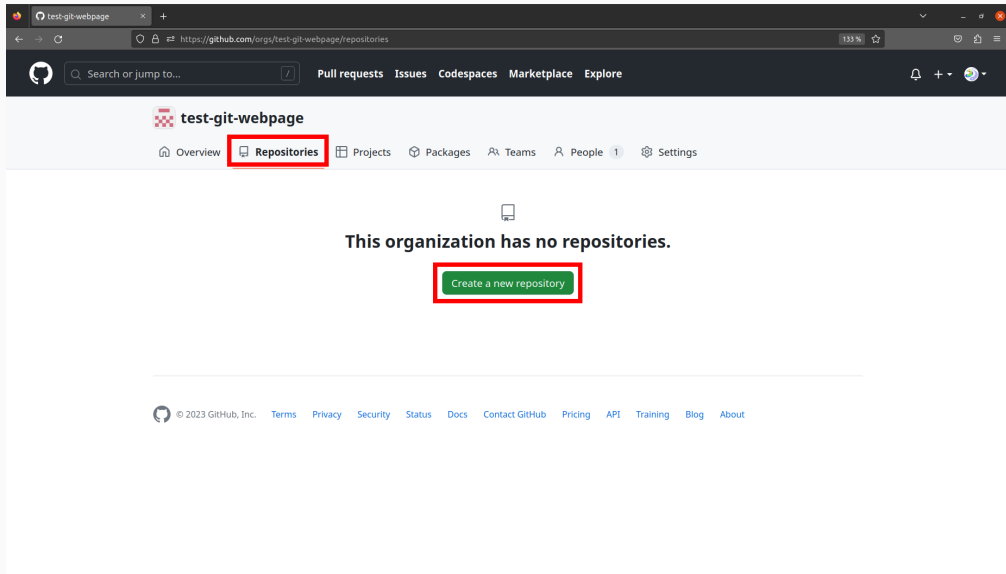
☒ **My personal account**
I.e., jeanfeidy (Jean Feydy)

☐ **A business or institution**
For example: GitHub, Inc., Example Institute, American Red Cross

☒ I hereby accept the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#).

Next

Step 2: create a repository called yoursite.github.io



Step 2: create a repository called yoursite.github.io

New repository · GitHub

← → ↻ <https://github.com/organizations/test-git-webpage/repositories/new> 133 % ☆

🔍 Search or jump to... Pull requests Issues Codespaces Marketplace Explore

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner * **Repository name ***

test-git-webpage / test-git-webpage.github.io

✓ test-git-webpage.github.io is available.

Great repository names are short and memorable. Need inspiration? How about [glowing-computing-machine?](#)

Description (optional)

A test git webpage.

☒ **Public**
Anyone on the internet can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

.gitignore template: Jekyll

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

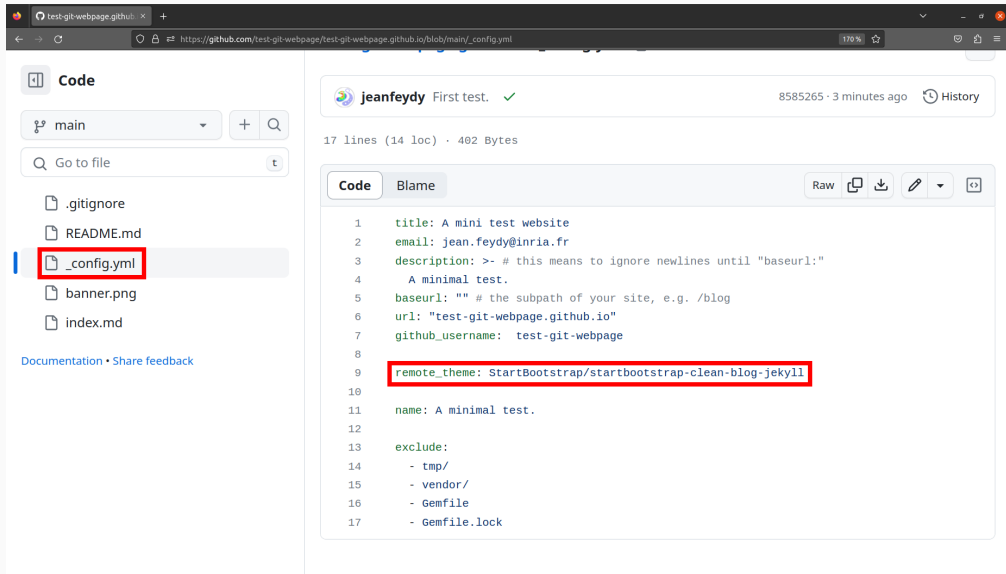
Step 3: create some minimal files

The screenshot shows a web browser displaying the GitHub repository page for `test-git-webpage / test-git-webpage.github.io`. The repository is public and has 1 branch (main) and 0 tags. The file list shows the following files and their commit history:

| File | Commit Message | Commit ID | Time Ago |
|--------------------------|----------------|-----------|----------------|
| <code>.gitignore</code> | Initial commit | 8585265 | 13 minutes ago |
| <code>README.md</code> | Initial commit | 8585265 | 13 minutes ago |
| <code>_config.yml</code> | First test. | 8585265 | 2 minutes ago |
| <code>banner.png</code> | First test. | 8585265 | 2 minutes ago |
| <code>index.md</code> | First test. | 8585265 | 2 minutes ago |

The repository description is "A test git webpage." and it has 0 stars, 1 watching, and 0 forks. The right sidebar shows the "About" section with a "Readme" link and the "Releases" section with a "Create a new release" link. The "Packages" section is also visible.

Step 4: choose your Jekyll theme



The screenshot shows a web browser displaying a GitHub repository page for 'test-git-webpage'. The left sidebar shows the file structure with files like '.gitignore', 'README.md', and '_config.yml' (highlighted with a red box). The main content area shows the code for '_config.yml', which is a Jekyll configuration file. The file content is as follows:

```
1  title: A mini test website
2  email: jean.feydy@inria.fr
3  description: >- # this means to ignore newlines until "baseurl:"
4    A minimal test.
5  baseurl: "" # the subpath of your site, e.g. /blog
6  url: "test-git-webpage.github.io"
7  github_username:  test-git-webpage
8
9  remote_theme: StartBootstrap/startbootstrap-clean-blog-jekyll
10
11  name: A minimal test.
12
13  exclude:
14    - tmp/
15    - vendor/
16    - Gemfile
17    - Gemfile.lock
```

The line `remote_theme: StartBootstrap/startbootstrap-clean-blog-jekyll` is highlighted with a red box. The browser address bar shows the URL: `https://github.com/test-git-webpage/test-git-webpage.github.io/blob/main/_config.yml`.

Step 5: create a nice banner using e.g. the Midjourney AI

test-git-webpage.github.io / banner.png

Code

main

Go to file


- .gitignore
- README.md
- _config.yml
- banner.png**
- index.md

Documentation • Share feedback

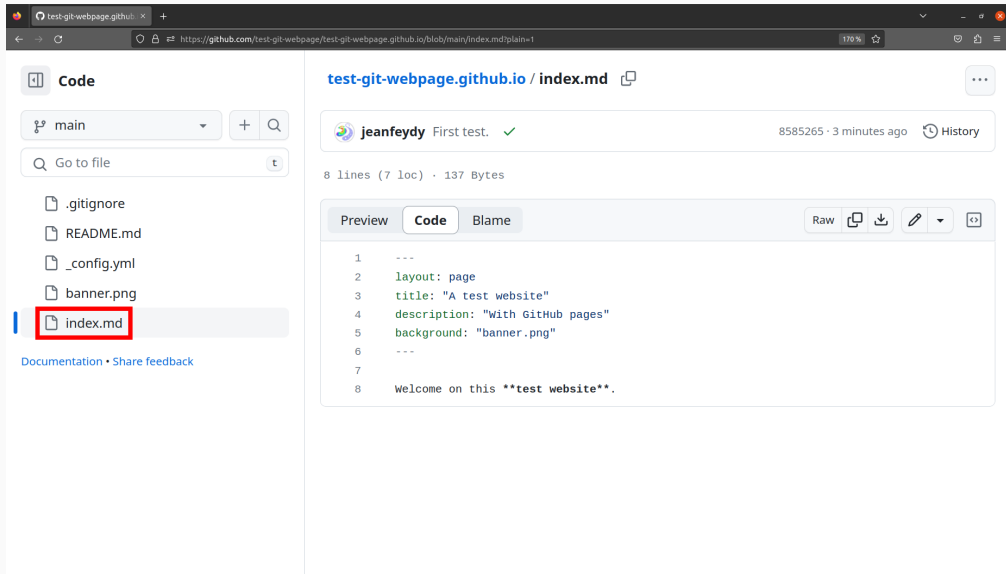
test-git-webpage.github.io / banner.png

jeanfeydy First test. ✓ 8585265 · 3 minutes ago History

943 KB



Step 6: create your front page



The screenshot shows a web browser displaying a GitHub repository page for `test-git-webpage.github.io`. The left sidebar shows the file structure with `index.md` highlighted. The main content area shows the code for `index.md`, which is a YAML frontmatter block followed by a welcome message.

Left Sidebar:

- Code
- main
- Go to file
- .gitignore
- README.md
- _config.yml
- banner.png
- index.md**
- [Documentation](#) • [Share feedback](#)

Main Content:

test-git-webpage.github.io / index.md

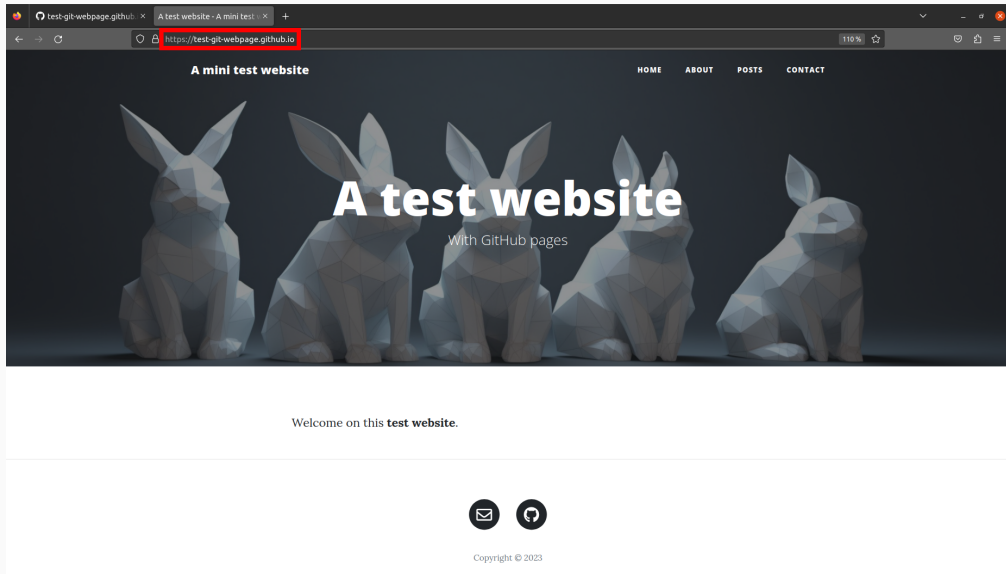
jeanfeydy First test. ✓ 8585265 · 3 minutes ago History

8 lines (7 loc) · 137 Bytes

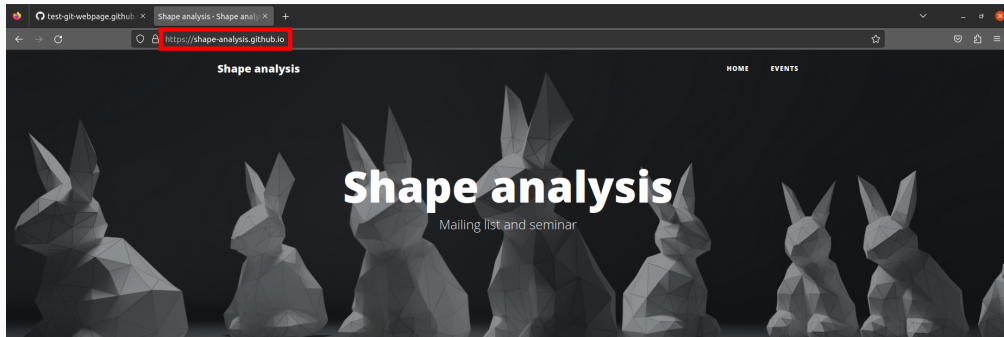
Preview Code Blame Raw Copy Download Edit

```
1 ---
2 layout: page
3 title: "A test website"
4 description: "With GitHub pages"
5 background: "banner.png"
6 ---
7
8 Welcome on this **test website**.
```

Step 7: commit, synchronize... and it's live!



A slightly more complete example



This website is home to the French research community on the **analysis of 3D shapes**, from biomedical imaging to computer assisted design and graphics.

We organize an **open seminar** in Paris and diffuse announcements related to relevant software tools, conferences and job offers.

Please feel free to invite newcomers in the field (interns, students, engineers...).

Mailing list

To register to **shanes@inria.fr**, please:

A slightly more complete example

The screenshot shows a web browser displaying the GitHub repository page for 'shape-analysis'. The repository is public and has 1 branch and 0 tags. The commit history shows a recent commit by 'jeanfeydy' titled 'Edit Louis' title.' with a green checkmark and commit hash '85856fa' 1 hour ago. The commit history table lists several files and their commit messages. The right sidebar shows the repository's 'About' section, including a description, README, activity, stars, watchers, and forks.

shape-analysis / shape-analysis.github.io Public

Edit Pins Unwatch 1 Fork 0 Star 0

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags Go to file Add file Code

jeanfeydy Edit Louis' title. ✓ 85856fa 1 hour ago 13 commits

| | | |
|------------|---------------------------------|------------|
| _data | Edit Louis' title. | 1 hour ago |
| _includes | Added and "events" page. | 4 days ago |
| events | Remove trailing horizontal bar. | 3 days ago |
| img | Cosmetic update. | 3 days ago |
| .gitignore | Initial commit | last week |
| 404.html | Initial commit. | last week |

About

Shape analysis seminar and diffusion list.

Readme Activity 0 stars 1 watching 0 forks Report repository

Going further with Quarto – include Python and R notebooks, etc.

Deepsha Menghani

Home Projects Resume

About

Quarto blog - Data visualizations - Animation and Interactivity

Animation brings in a key component of analysis where the third parameter you want to animate is not directly visible in your plot. Sometimes it can tell a powerful story and sometimes it can just add some flair to an otherwise low-key story.

This blog goes through examples and code to show how easy it is to use gganimate and plotly packages to animate your data visualizations and make them interactive....

[Continue reading](#)

Shiny Flex Dashboard - Sales forecasting and anomaly detection

This dashboard, built with Shiny Flex capability, looks at data from EverythingYouWillNeed.com website ([false data](#)) to report out daily product sales. You can select the product, the dates to analyze and click on apply to replicate the report, check sales forecast and anomalies for the specific product choice.

Giving your stakeholders the ability to play with product grain forecast and anomaly detection is a great way to get them on board with the decision you made at scale. This

1 ## Quarto blog - Data visualizations - Animation and Interactivity

2

3 :::: columns

4

5 ::: {.column width="55%"}
6 Description 1
7 :::
8

9 ::: {.column width="5%"}
10 :::
11

12 ::: {.column width="40%"}
13 Image 1
14 :::
15

16 ::::

17

18 ## Shiny Flex Dashboard - Sales forecasting and anomaly detection

19 :::: columns

38 / 60

deepshamenghani.quarto.pub/portfolio-with-quarto

posit

47

Make your code look clean

Standard *formatters* now beautify your code automatically

These tools:

- Choose spacings, line breaks and parentheses for you.
- **Do not impact the meaning** of your code.
- Smooth out discrepancies between **different collaborators**.

Some good options:

- **black** for Python (`pip install "black[jupyter]"`)
- **styler** for R (`install.packages("styler")`)

Write some ugly code

```
def f(a, **kwargs):  
    b= a +1  
    c = b**2+a * 3  
    return c + 1  
  
r = f(1, b = [x**2 for x in range(10)], d= [y**3 for y in range(5)],  
      e = [z**4 for z in range(3)])
```


Run “black code.py” or “black .” in your code folder

```
def f(a, **kwargs):  
    b = a + 1  
    c = b**2 + a * 3  
    return c + 1  
  
r = f(  
    1,  
    b=[x**2 for x in range(10)],  
    d=[y**3 for y in range(5)],  
    e=[z**4 for z in range(3)],  
)
```

Test your code automatically

Automatic testing is a key part of software engineering

Modern tools:

- Let you write test functions with **minimal overhead**.
- Run a full test suite every time you push a commit to GitHub.
- Send you an **e-mail** if your modifications have **introduced a bug**.

This is key:

- To quickly identify mistakes.
- To let you **trust your collaborators** on large projects.
- To let users **trust your team**.
- To let the **future** you trust the **current** you...
- To raise an alarm if a **dependency update** (PyTorch...) breaks your code.

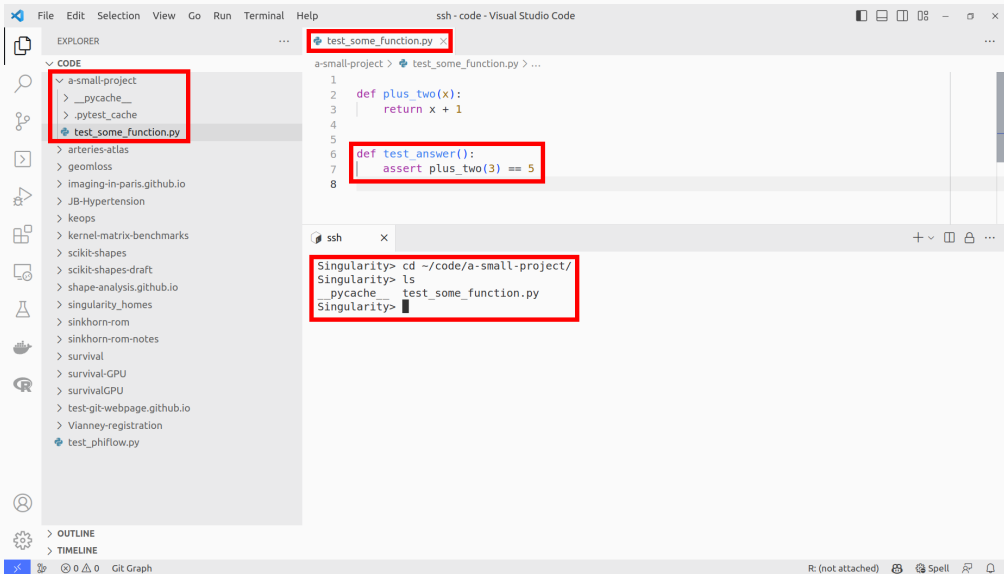
Automatic testing is known as *continuous integration*

testthat is the standard package for R.

A personal selection for Python:

- **pytest** to discover test functions in the repository.
- **hypothesis** to generate challenging test cases.
- **beartype** to check function inputs.
- **jaxtyping** to check the shapes of NumPy arrays and Torch tensors.
- **codecov** to highlight the parts of the code that are yet to be tested.

Step 1: create a file named `test_*.py` and a function `test_*(...)`



Step 2: find bugs

The screenshot shows the Visual Studio Code interface with a file explorer on the left and a code editor on the right. The file explorer shows a project named 'a-small-project' with several files, including 'test_some_function.py'. The code editor shows the contents of 'test_some_function.py', which defines a function 'plus_two(x)' and a test function 'test_answer()'. The 'test_answer()' function contains an assertion that 'plus_two(3) == 5'. The terminal window shows the output of running 'pytest' on the file, indicating a failure in the 'test_answer' function. The failure message is 'AssertionError' and the test result is 'FAILED'.

```
def plus_two(x):  
    return x + 1  
  
def test_answer():  
    assert plus_two(3) == 5
```

```
Singularity> pytest .  
===== test session starts =====  
platform linux -- Python 3.10.9, pytest-7.2.2, pluggy-1.0.0  
rootdir: /home/code/a-small-project  
plugins: anyio-3.6.2, hypothesis-6.70.0, jaxtyping-0.2.14, typeguard-3.0.1  
collected 1 item  
  
test_some_function.py F [100%]  
  
===== FAILURES =====  
test_answer  
  
def test_answer():  
> assert plus_two(3) == 5  
E      assert 4 == 5  
E      + where 4 = plus_two(3)  
  
test_some_function.py:7: AssertionError  
===== short test summary info =====  
FAILED test_some_function.py::test_answer - assert 4 == 5  
===== 1 failed in 0.05s =====  
Singularity>
```

Step 3: fix them!

The screenshot shows the Visual Studio Code interface with a file explorer on the left and a code editor on the right. The file explorer shows a project named 'a-small-project' with several files and folders. The code editor shows a file named 'test_some_function.py' with the following code:

```
1
2 def plus_two(x):
3     return x + 2
4
5
6 def test_answer():
7     assert plus_two(3) == 5
8
```

The code is being run in a terminal window. The terminal output shows the results of a pytest command:

```
Singularity> pytest .
===== test session starts =====
platform linux -- Python 3.10.9, pytest-7.2.2, pluggy-1.0.0
rootdir: /home/code/a-small-project
plugins: anyio-3.6.2, hypothesis-6.70.0, jaxtyping-0.2.14, typeguard-3.0.1
collected 1 item

test_some_function.py
===== 1 passed in 0.01s =====
Singularity>
```

The terminal output indicates that the test passed successfully. The status bar at the bottom shows 'R: (not attached)' and 'Git Graph'.

Step 4: setup automated tests for every GitHub push

The screenshot shows the Visual Studio Code interface with the Explorer view on the left and the Code view on the right. The Explorer view shows the file structure of the survivalGPU repository, with the .github/workflows directory expanded. The python-package.yml file is selected. The Code view shows the contents of the python-package.yml file, which is a GitHub Actions workflow. The workflow is triggered on every push to the survivalGPU repository. It includes a build job that runs on ubuntu-latest. The job uses a matrix to run tests on different Python versions (3.8 and 3.11). The steps in the workflow are: checkout, set up Python, install dependencies, run tests with pytest and coverage, and upload coverage reports to Codecov.

```
survivalGPU > .github > workflows > ! python-package.yml
You, 2 weeks ago | 1 author (You)
1  name: Python package
2
3  on: [push]
4
5  jobs:
6    build:
7      runs-on: ubuntu-latest
8      strategy:
9        matrix:
10         python-version: ["3.8", "3.11"]
11      steps:
12        - uses: actions/checkout@v3
13        - name: Set up Python ${ matrix.python-version }}
14          uses: actions/setup-python@v4
15          with:
16            python-version: ${ matrix.python-version }}
17        - name: Install dependencies
18          run: |
19            python -m pip install --upgrade pip
20            pip install ruff pytest pytest-cov hypothesis
21            if [ -f requirements.txt ]; then pip install -r requirements.txt; fi
22            pip install torch-scatter -f https://data.pyg.org/whl/torch-2.0.0+cpu.html
23            # You can test your matrix by printing the current Python version
24        - name: Display Python version
25          run: python -c "import sys; print(sys.version)"
26        - name: Test with pytest
27          run: |
28            pytest . --cov=survivalgpu --cov-report=xml --cov-report=html --color=yes
29        - name: Upload coverage reports to Codecov with GitHub Action
30          uses: codecov/codecov-action@v3
```


Step 5: tests run for free on the GitHub servers

The screenshot shows the GitHub repository page for `jeanfeydy/survivalGPU`. The repository is public and has 2 stars, 0 forks, and 1 watcher. The current branch is `refactor_objects`, which is 48 commits ahead and 21 commits behind the `main` branch. The page indicates that the branch has recent pushes 1 minute ago. A notification banner states that some checks haven't completed yet, with 2 in progress checks. The commit history shows a recent commit by `jeanfeydy` titled "Pruned the python CI." with a commit hash of `483b992` 1 minute ago, and 70 total commits. The commit message for the recent commit is "Some checks haven't completed yet". The commit history also shows a previous commit by `jeanfeydy` titled "Python package / build (3.8) (pu..." 4 months ago, and another commit by `jeanfeydy` titled "Python package / build (3.11) (n..." yesterday.

jeanfeydy / survivalGPU Public

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

refactor_objects has recent pushes 1 minute ago Compare & pull request

refactor_objec... 3 branches 0 tags Go to file Add file <> Code

This branch is 48 commits ahead, 21 commits behind main. Contribute

jeanfeydy Pruned the python CI. 483b992 1 minute ago 70 commits

Some checks haven't completed yet
2 in progress checks

Python package / build (3.8) (pu... Details

Python package / build (3.11) (n... Details

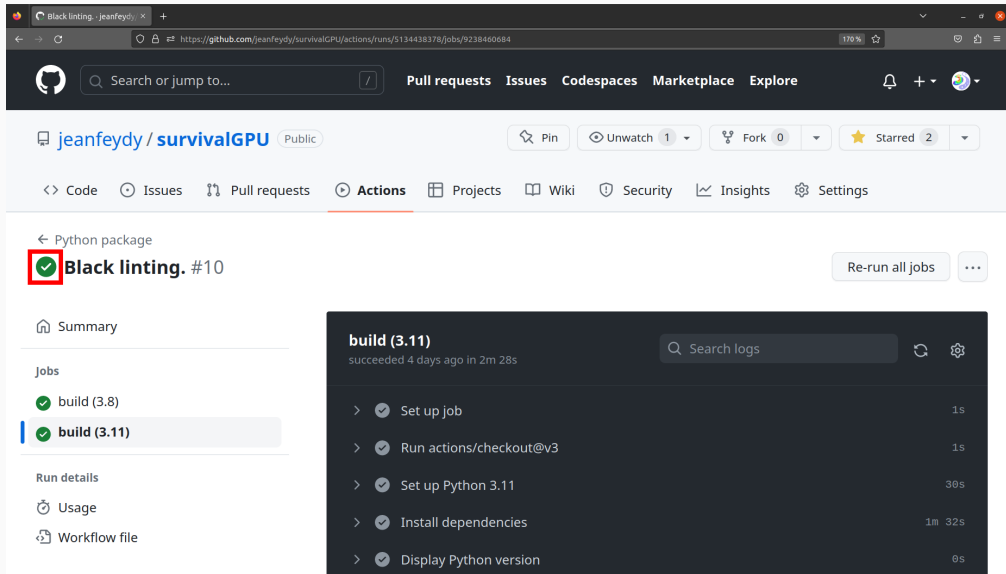
About

Fast implementation of survival analysis models (CoxPH, WCE...) with GPU support, for R and Python.

Readme LGPL-2.1 license Activity 2 stars 1 watching 0 forks

Releases

Success: your tests passed!



The screenshot shows a GitHub repository page for 'jeanfeydy / survivalGPU'. The 'Actions' tab is selected, displaying a workflow named 'Python package' with a job 'Black linting. #10' that has a green checkmark icon. A 'Re-run all jobs' button is visible. The 'Summary' section shows a list of jobs, with 'build (3.11)' highlighted. The 'Run details' section shows a list of steps for the 'build (3.11)' job, all of which are successful.

Black linting. #10

Summary

Jobs

- build (3.8)
- build (3.11)

Run details

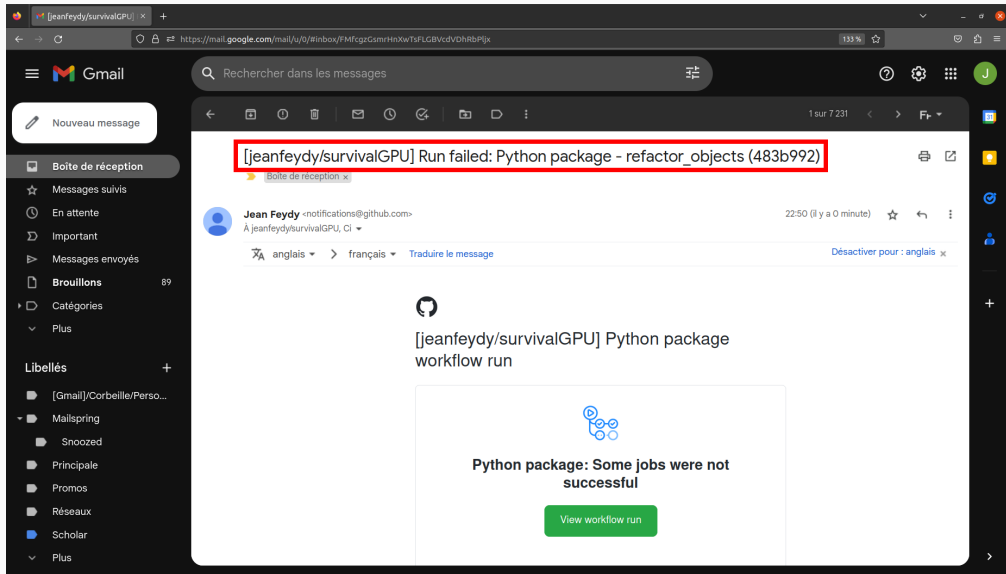
- Usage
- Workflow file

build (3.11)
succeeded 4 days ago in 2m 28s

Search logs

- > Set up job 1s
- > Run actions/checkout@v3 1s
- > Set up Python 3.11 30s
- > Install dependencies 1m 32s
- > Display Python version 0s

Failure: you will get an e-mail!



Failure: inspect the test run to identify the bug

The screenshot shows a web browser displaying a GitHub Actions workflow run for the repository `jeanfeydy/survivalGPU`. The URL in the address bar is `https://github.com/jeanfeydy/survivalGPU/actions/runs/5171123687/jobs/9314470646`. The page is divided into a left sidebar and a main content area.

Left Sidebar:

- Summary** (Home icon)
- Jobs**
 - build (3.8) (Info icon)
 - build (3.11)** (Error icon, highlighted with a red box)
- Run details**
 - Usage (Clock icon)
 - Workflow file (Document icon)

Main Content Area:

build (3.11)
failed 6 minutes ago in 2m 34s

Search logs

Test with pytest 25s

<survivalgpu.coxph.CoxPHSurvivalAnalysis object at 0x7fd360fdd710> violates type hint typing.Optional[jaxtyping.Float32[Tensor, 'covariates']], as <class "survivalgpu.coxph.CoxPHSurvivalAnalysis"> <survivalgpu.coxph.CoxPHSurvivalAnalysis object at 0x7fd360fdd710> not <protocol "jaxtyping.Float32[Tensor, 'covariates']"> or <class "builtins.NoneType">.

```
222 Falsifying example: test_coxph_shapes(  
223     n_covariates=1,  
224     n_patients=2,  
225     n_batch=1,  
226     n_strata=1,  
227     max_duration=1,  
228 )  
229  
230 You can reproduce this example by temporarily adding @reproduce_failure('6.76.0',  
231 b'AAAAAAA') as a decorator on your test case  
231 ===== 1 failed, 16 passed, 1 skipped, 1 warning in 24.11s =====  
232 Error: Process completed with exit code 1.
```

Upload coverage reports to Codecov with GitHub Action 0s

Post Set up Python 3.11 0s

Codecov: a nice web API to inspect your test coverage

Codecov

https://app.codecov.io/gh/jeanfeydy/survivalGPU/tree/refactor_objects/python%2Fsurvivalgpu

Docs Support Blog Feedback

jeanfeydy / survivalGPU / P refactor_objects

Coverage Flags Commits Pulls Settings

P Branch Context

refactor_objects

Source: latest commit 64a46d0

Coverage on branch

67.35%

827 of 1228 lines covered

3 Months trend

+67.35%

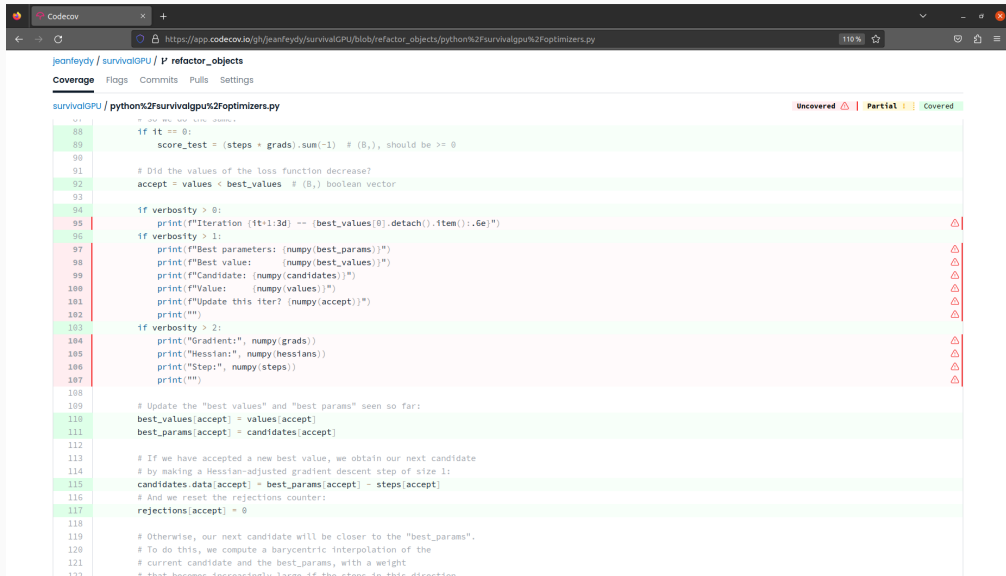
Show Chart

Code tree File list survivalGPU / python%2Fsurvivalgpu

Search for files

| Files ↑ | Tracked lines | Covered | Partial | Missed | Coverage % |
|---------------------------|---------------|---------|---------|--------|------------|
| .. | | | | | |
| __init__.py | 9 | 8 | 0 | 1 | 88.89% |
| autodiff.py | 13 | 13 | 0 | 0 | 100.00% |
| bootstrap.py | 23 | 23 | 0 | 0 | 100.00% |
| coxph.py | 222 | 142 | 0 | 80 | 63.96% |
| coxph_likelihood.py | 108 | 50 | 0 | 58 | 46.30% |
| coxph_likelihood_keops.py | 51 | 6 | 0 | 45 | 11.76% |
| datasets.py | 239 | 223 | 0 | 16 | 93.31% |
| group_reduction.py | 86 | 66 | 0 | 20 | 76.74% |
| optimizers.py | 46 | 34 | 0 | 12 | 73.91% |
| torch_datasets.py | 122 | 118 | 0 | 4 | 96.72% |

Codecov: a nice web API to inspect your test coverage



The screenshot shows a web browser window with the Codecov interface. The address bar shows the URL: `https://app.codecov.io/gh/jeanfeydy/survivalGPU/blob/refactor_objects/python%2Fsurvivalgpu%2Foptimizers.py`. The page title is "jeanfeydy / survivalGPU / refactor_objects". Below the title, there are tabs for "Coverage", "Flags", "Commits", "Pulls", and "Settings". The "Coverage" tab is selected, and it shows the file path "survivalGPU / python%2Fsurvivalgpu%2Foptimizers.py". The coverage status is "110%". The code is displayed with line numbers on the left and coverage status on the right. The code is a Python file named `optimizers.py`. The coverage status is "110%". The code is displayed with line numbers on the left and coverage status on the right. The code is a Python file named `optimizers.py`. The coverage status is "110%".

```
107 # ...
108
109 # Update the "best values" and "best params" seen so far:
110 best_values[accept] = values[accept]
111 best_params[accept] = candidates[accept]
112
113 # If we have accepted a new best value, we obtain our next candidate
114 # by making a Hessian-adjusted gradient descent step of size 1:
115 candidates.data[accept] = best_params[accept] - steps[accept]
116 # And we reset the rejections counter:
117 rejections[accept] = 0
118
119 # Otherwise, our next candidate will be closer to the "best_params".
120 # To do this, we compute a barycentric interpolation of the
121 # current candidate and the best_params, with a weight
122 # that becomes increasingly large if the steps in this direction
```

The tools we discussed today let you:

- **Collaborate efficiently** with your team.
- Control the **flow of information** about your work.

I strongly advise you to **try them out**:

- **Smooth** learning curve.
- Save **tons of time** (debugging, lost versions...).
- **Be credible** in team meetings, conferences, job interviews.

Please feel free to ask me questions anytime!

