



Getting started with GitHub

从GitHub开始

杨子民 软件工程2202

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GitHub小组

群号: 766175510



扫一扫二维码，加入群聊。



讨论

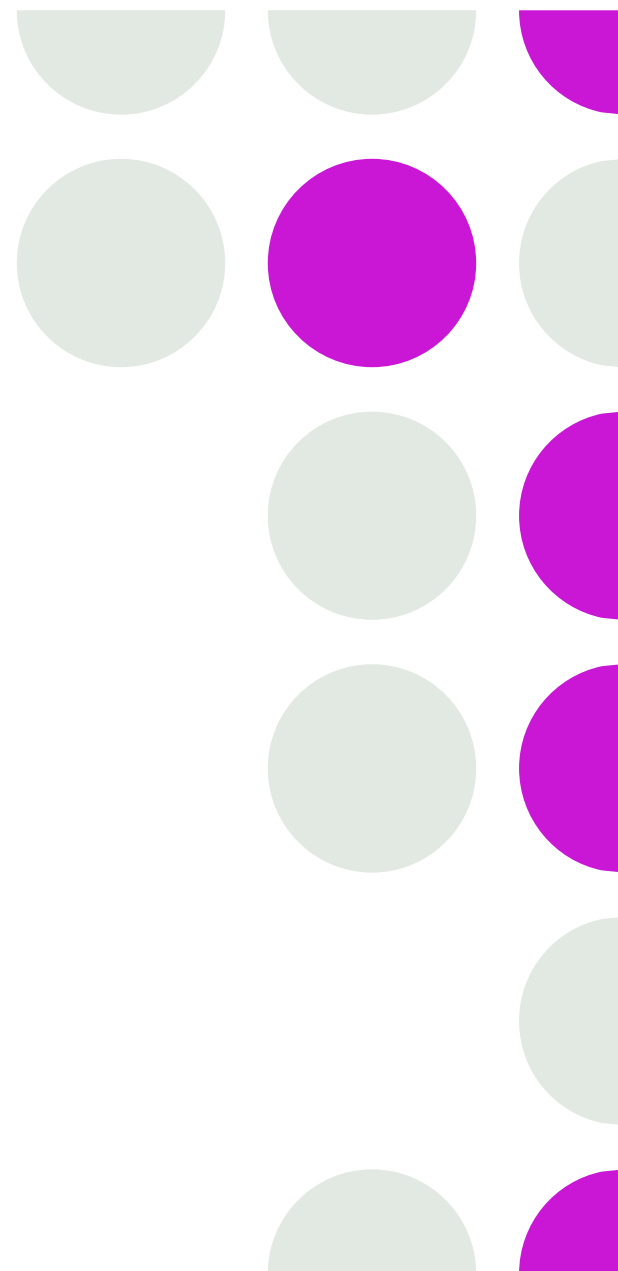
QQ群: 766175510

讲座页面:

https://youngzm.com/lecture/get_started_with_github/

Getting started with GitHub

- What is GitHub?
 - Why GitHub?
 - How to have fun at GitHub?
 - Version Control 版本控制
 - Git
 - 参考资料
 - 结语
-



What is GitHub?

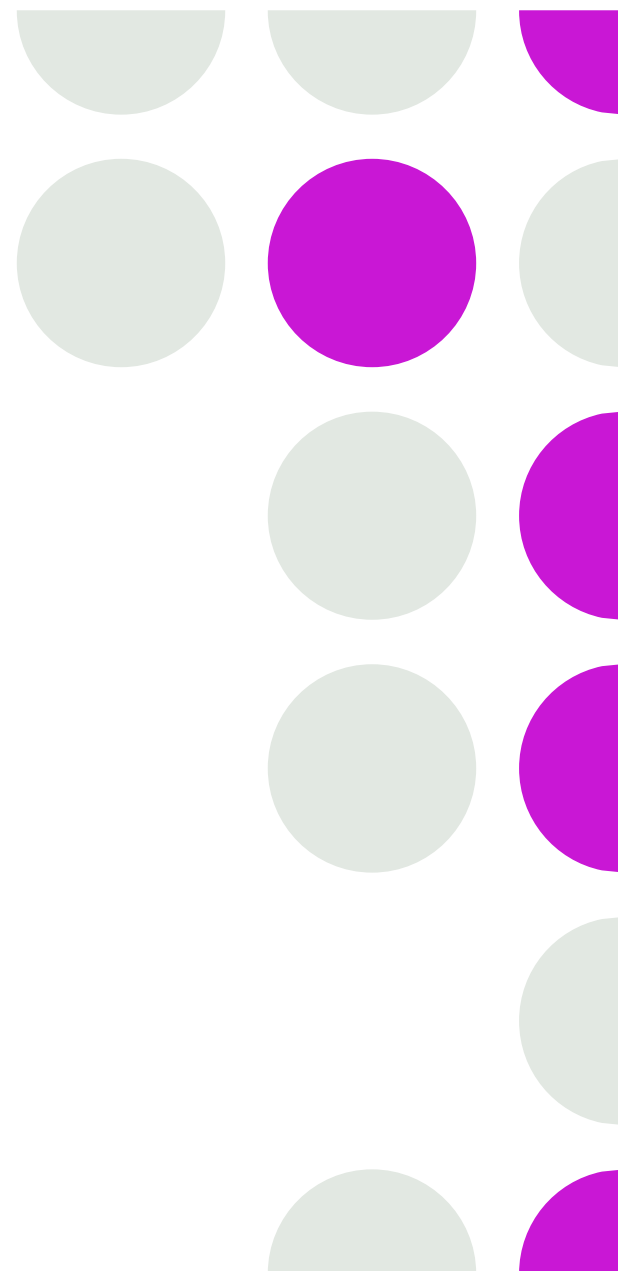


GitHub是一个在线软件源代码托管服务平台，使用Git作为版本控制软件。(Wikipedia_zh)

—“课设作业参考平台”—

—“GayHub”——“全球最大同性交友网站”——

总之，这是一个有丰富代码和丰富学习资料的社区！



Search GitHub

月.独.交.俊, 真人】约||会.

Contributions Repositories Public activity

个人房间 他人房间

Popular repositories

- what-happens-when 7,517 ★
- django-taggit 1,213 ★
- django-filter 1,060 ★
- django-ajax-validation 244 ★
- django-templatetag-sugar 207 ★

Repositories contributed to

- pyca/cryptography 622 ★
- WhiteHouse/https 26 ★
- Homebrew/homebrew 22,038 ★
- PyCon/pycon 27 ★

好评数

Alex Gaynor

想跟他约的人

他想约的人

约会活动日历

1.8k Followers 154 Starred 41 Following

Organizations

Summary of Pull Requests, issues and other activity

Contributions in the last year: 2,481 total (Mar 23, 2014 – Mar 23, 2015)

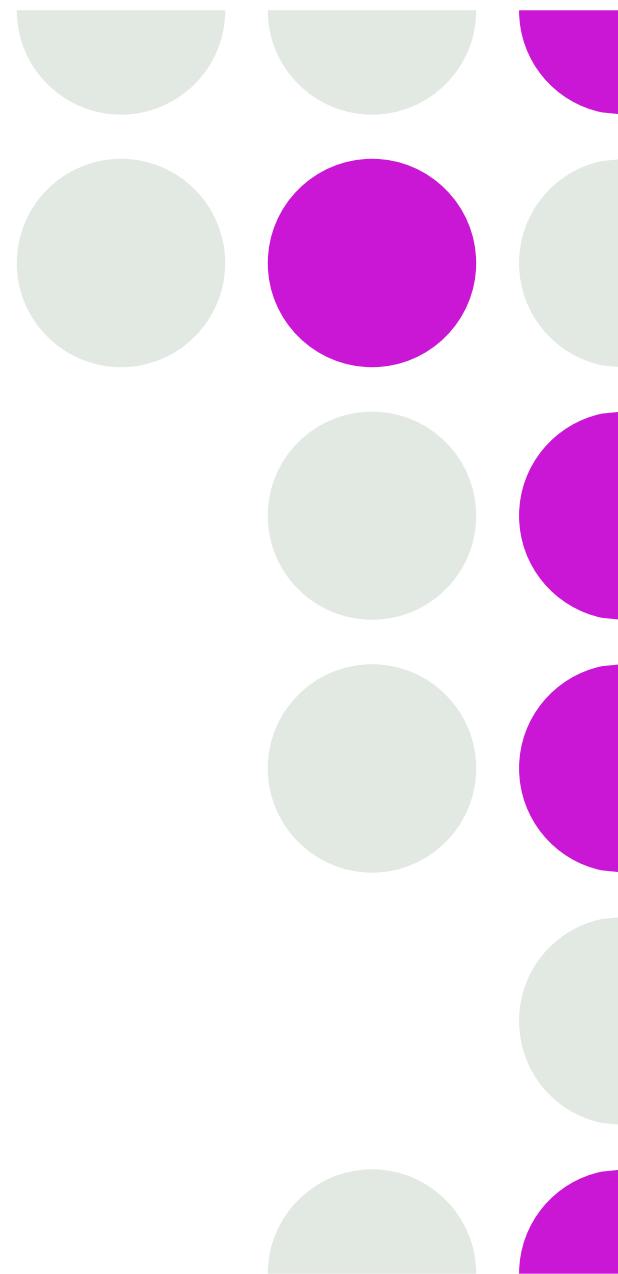
Longest streak: 51 days (September 14 – November 3)

Current streak: 6 days (March 18 – March 24)

知乎用户

Why GitHub?

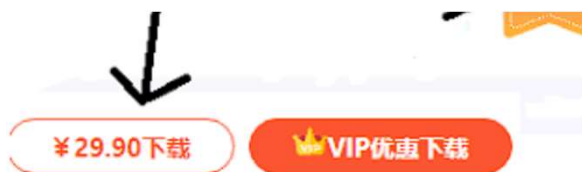
- 多：GitHub已经有超过5700万注册用户和1.9亿代码库（包括至少2800万开源代码库），事实上已经成为了世界上最大的代码托管网站和开源社区。
 - 好：功能多。协作开发、代码审查、问题追踪、Wiki、GitHub Pages
 - 省：被微软收购后，常用的功能基本实现免费。
-



不如CSDN?

- ~~CopyDownloadStealNot-working~~
- CSDN是论坛，主要提供编程技术交流和分享服务，而GitHub是一个用于存储代码的托管平台。

- CSDN:

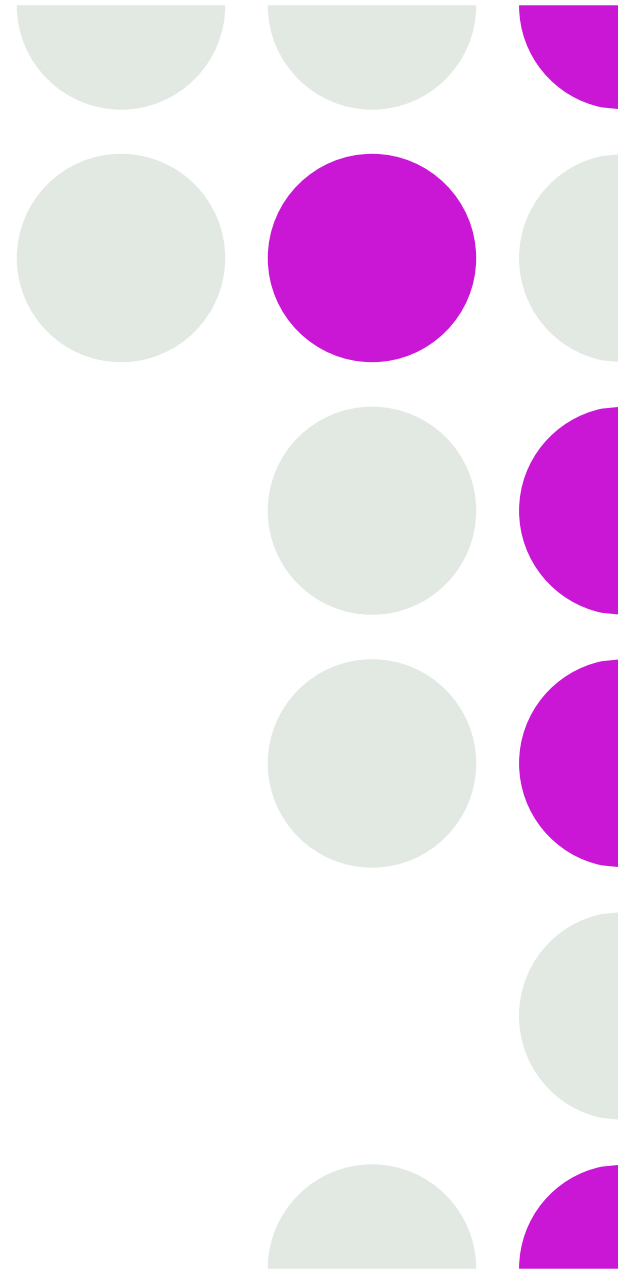


- GitHub:

 Download ZIP

How to have fun at GitHub?

- 如何访问GitHub
 - 实际操作GitHub
 - GitHub项目探索实例
 - GitHub Codespaces
 - GitHub Education
-



如何访问GitHub?

可能是最便捷且门槛最低的方法:

- Watt Toolkit (原Steam++, 免费)
- 网易UU加速器学术加速(可能现在需要付费)

可能是最有效的方法:

- 使用网络代理服务器

其它可能的办法:

- 修改HOST文件、设置特定的DNS、本地反向代理
-

实际操作GitHub

The screenshot displays the GitHub homepage interface. At the top, the browser address bar shows 'https://github.com'. The navigation bar includes links for 'Pull requests', 'Issues', 'Codespaces', 'Marketplace', and 'Explore'. The main content area is divided into three sections:

- Left Sidebar:** Displays the user profile 'youngzm339' and a list of 'Top Repositories' including 'CrawlSchoolNewsScrapy', 'youngzm339/youngzm339', 'HAUT-Z01211102A-ObjectOrientedProgramming', 'blog', 'ExpressManagementSystem', 'lecture', and 'hugo-gallery-deploy'.
- Center Feed:** Shows the 'Following' tab with two entries:
 - A notification: 'shzaiz started following Sakiyary and cn-zheshi · 3 hours ago'.
 - A user profile for 'Sakiyary' (Freshman@Nanjing University) with a 'Follow' button.
 - A notification: 'memset0 starred Minestom/Minestom · 4 hours ago'.
 - A repository card for 'Minestom/Minestom' (1.19.2 Lightweight Minecraft server) with a 'Star' button.
- Right Sidebar:** Titled 'Latest changes', it lists recent updates from Dependabot and Docker images, each with a 'View changelog' link.

The bottom of the page features an 'Explore repositories' section.

GitHub项目探索实例 -- 课设参考

ExpressManagementSystem

Search or jump to...

Pull requestsIssuesCodespacesMarketplaceExplore

youngzm339 / ExpressManagementSystemPublic

PinUnwatch1Fork0Star0

<> CodeIssuesPull requestsActionsProjectsSecurityInsightsSettings

master1 branch0 tags

Go to fileAdd fileCode

youngzm339 Create README.mda215bf4 yesterday7 commits

.github/workflows	Create cmake.yml	2 days ago
.idea	[ADD]Project config files	3 days ago
ItemsDir	[ADD]Project files	2 days ago
UsersDir	[ADD]Project files	yesterday
.gitignore	[ADD]Project files488 Bytes	2 days ago
CMakeLists.txt	[ADD]Project files200 Bytes	3 days ago
Item.cpp	[ADD]Project files661 Bytes	2 days ago
Item.h	[ADD]Project files800 Bytes	2 days ago
Method.cpp	[ADD]Project files19.6 KB	2 days ago
Method.h	[ADD]Project files689 Bytes	2 days ago
README.md	Create README.md142 Bytes	yesterday
User.cpp	[ADD]Project files714 Bytes	2 days ago
User.h	[ADD]Project files781 Bytes	2 days ago

About

ExpressManagementSystem is an experimental project developed by YoungZM, which is part of his C language coursework

Readme0 stars1 watching0 forks

Releases

No releases published
Create a new release

Packages

No packages published
Publish your first package

Languages

GitHub项目探索实例 – 学习资料

SJTU-Courses

The screenshot displays the GitHub interface for the repository `kxxwz/SJTU-Courses`. The repository is public and has 330 watchers, 2.1k forks, and 7.8k stars. The main content area shows a list of course folders, each with a description and the time since the last update. A pull request is also visible at the top of the file list.

Course Name	Description	Last Update
CS125 程序设计	upload several courses	5 years ago
CS221 数据结构	upload several courses	5 years ago
CS222 算法分析与设计	Upload several courses	5 years ago
CS258 信息论	Upload several courses	5 years ago
CS385 机器学习	Upload several courses	5 years ago
EI331 信号与系统	upload several courses	5 years ago
EI332 计算机组成	upload several courses	5 years ago
EI333 软件工程	Fix Course Code in EI332 Computer Organization.	4 years ago
EI338 计算机系统工程	Upload several courses	5 years ago
EI339 人工智能	Upload several courses	5 years ago
EI374 高级算法	Uploaded new lectures to "EI374 高级算法"	4 years ago
MA357 数理统计	上传新课程-高级算法	4 years ago
Misc	create Misc	5 years ago
SE305 数据库技术	finish uploading SE305	5 years ago

About
上海交通大学课程资料分享
courses sjtu
Readme
CC-BY-SA 4.0 license
7.8k stars
330 watching
2.1k forks
Report repository

Releases
No releases published

Packages
No packages published

Contributors 4





GitHub项目探索实例

E-HAUT

- e 河工大-新河南工业大学
校园网客户端



创建项目仓库


 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 *

 youngzm339


 /

Great repository names are short and memorable. Need inspiration? How about [congenial-fishstick?](#)

Description (optional)

☒  **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:

Skip this step if you're importing an existing repository.

☐ **Add a README file**

This is where you can write a long description for your project. [Learn more.](#)

Add .gitignore

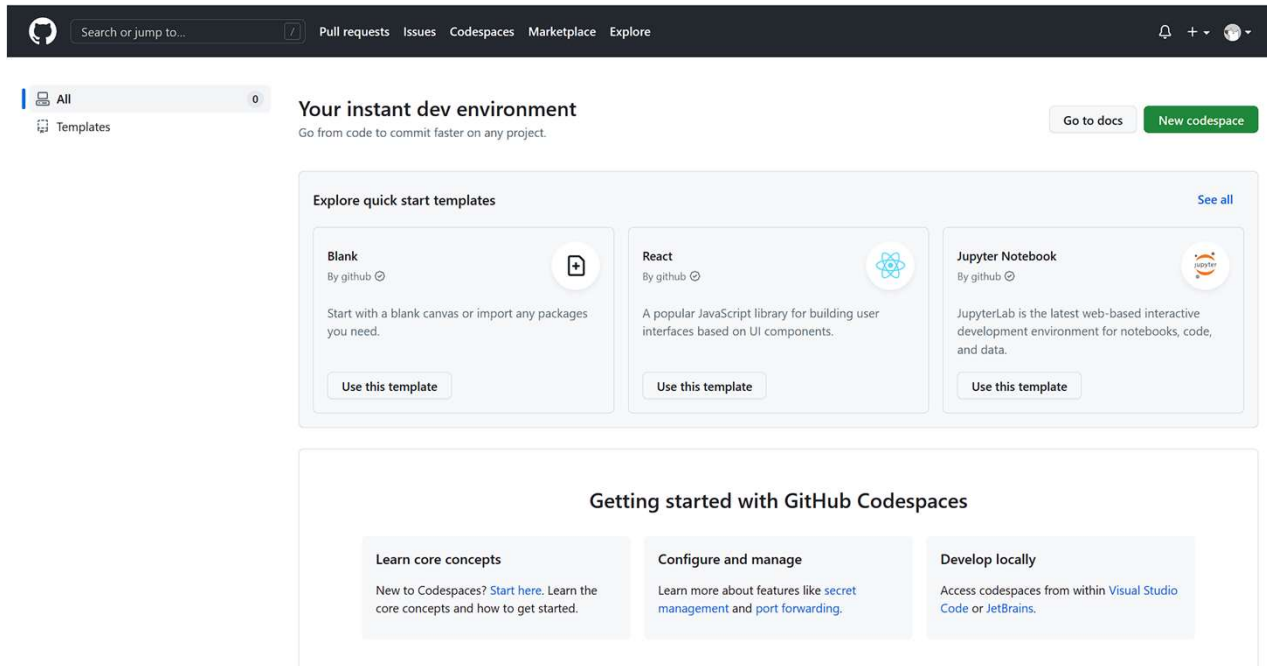
Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: **None**

Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)

GitHub Codespaces



The screenshot displays the GitHub Codespaces web interface. At the top is a dark navigation bar with the GitHub logo, a search bar, and links for Pull requests, Issues, Codespaces, Marketplace, and Explore. Below this is a light blue header with a filter dropdown set to 'All' (showing 0 items) and a 'Templates' link. The main content area is titled 'Your instant dev environment' with a subtitle 'Go from code to commit faster on any project.' and two buttons: 'Go to docs' and 'New codespace'. A section titled 'Explore quick start templates' features three cards: 'Blank' (a blank canvas or import packages), 'React' (a popular JavaScript library), and 'Jupyter Notebook' (a web-based interactive development environment). Each card has a 'Use this template' button. Below this is a 'Getting started with GitHub Codespaces' section with three cards: 'Learn core concepts' (new to Codespaces), 'Configure and manage' (features like secret management and port forwarding), and 'Develop locally' (access codespaces from within Visual Studio Code or JetBrains).

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

All 0 Templates

Your instant dev environment

Go from code to commit faster on any project.

Go to docs New codespace

Explore quick start templates

See all

Blank

By github

Start with a blank canvas or import any packages you need.

Use this template

React

By github

A popular JavaScript library for building user interfaces based on UI components.

Use this template

Jupyter Notebook

By github

JupyterLab is the latest web-based interactive development environment for notebooks, code, and data.

Use this template

Getting started with GitHub Codespaces

Learn core concepts

New to Codespaces? [Start here](#). Learn the core concepts and how to get started.

Configure and manage

Learn more about features like [secret management](#) and [port forwarding](#).

Develop locally

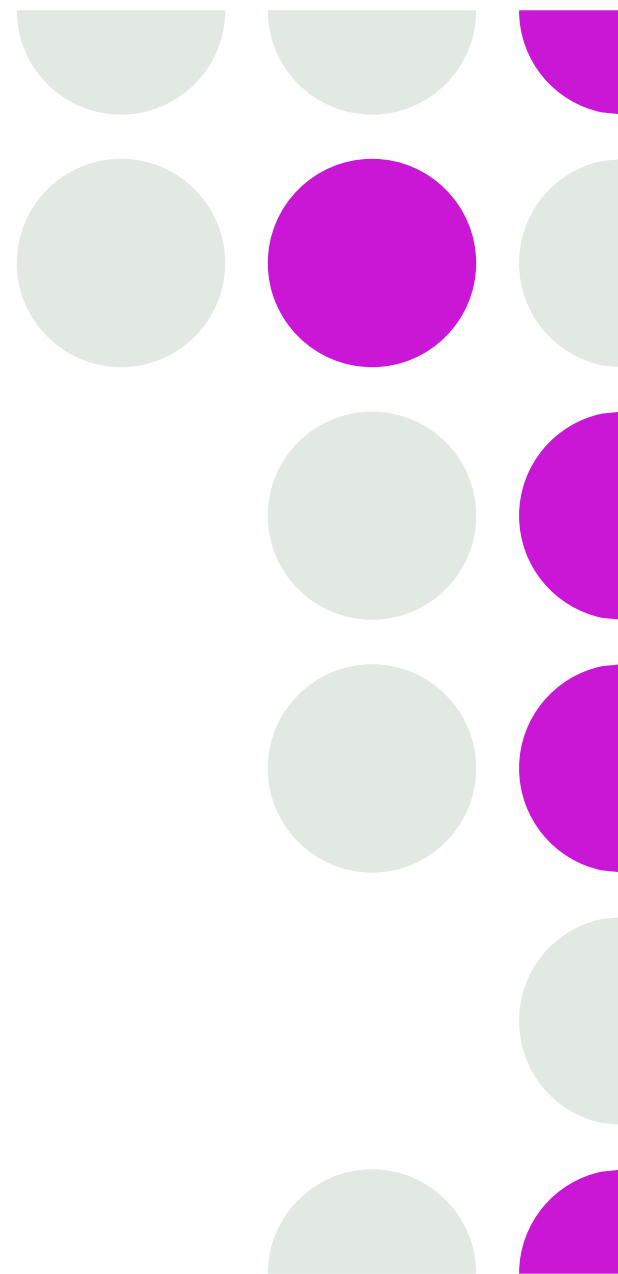
Access codespaces from within [Visual Studio Code](#) or [JetBrains](#).

GitHub Education

可以薅资本主义羊毛

- 免费的高级账户：GitHub Pro
- 免费的开发工具许可：JetBrains IDE
- 免费的云服务：Azure, DigitalOcean
- 域名、Termius等等

自行搜索：[如何申请github学生包](#)




Version Control 版本控制


设想写一篇论文： § 提纲 § 草稿 § 成稿 § 正式版 § 正式版改
§ 正式最终版 § 正式最终版修
改版 § 正式真的是最终版


想删除一个段落，又怕将来想
恢复找不回来怎么办？


Version Control 版本控制

- 先把当前文件“另存为.....”一个新的Word文件，再接着改，改到一定程度，再“另存为.....”一个新文件，这样一直改下去，最后你的论文变成了这样：
- 版本控制是一个系统，用于记录一段时间内对一个文件或一组文件的更改，以便以后可以调用特定版本
- 采用原始的文件备份进行版本控制的方式，需要手动备份，来回翻找历史记录查看文件更改，麻烦！

 论文稿-超级无敌最终版.docx

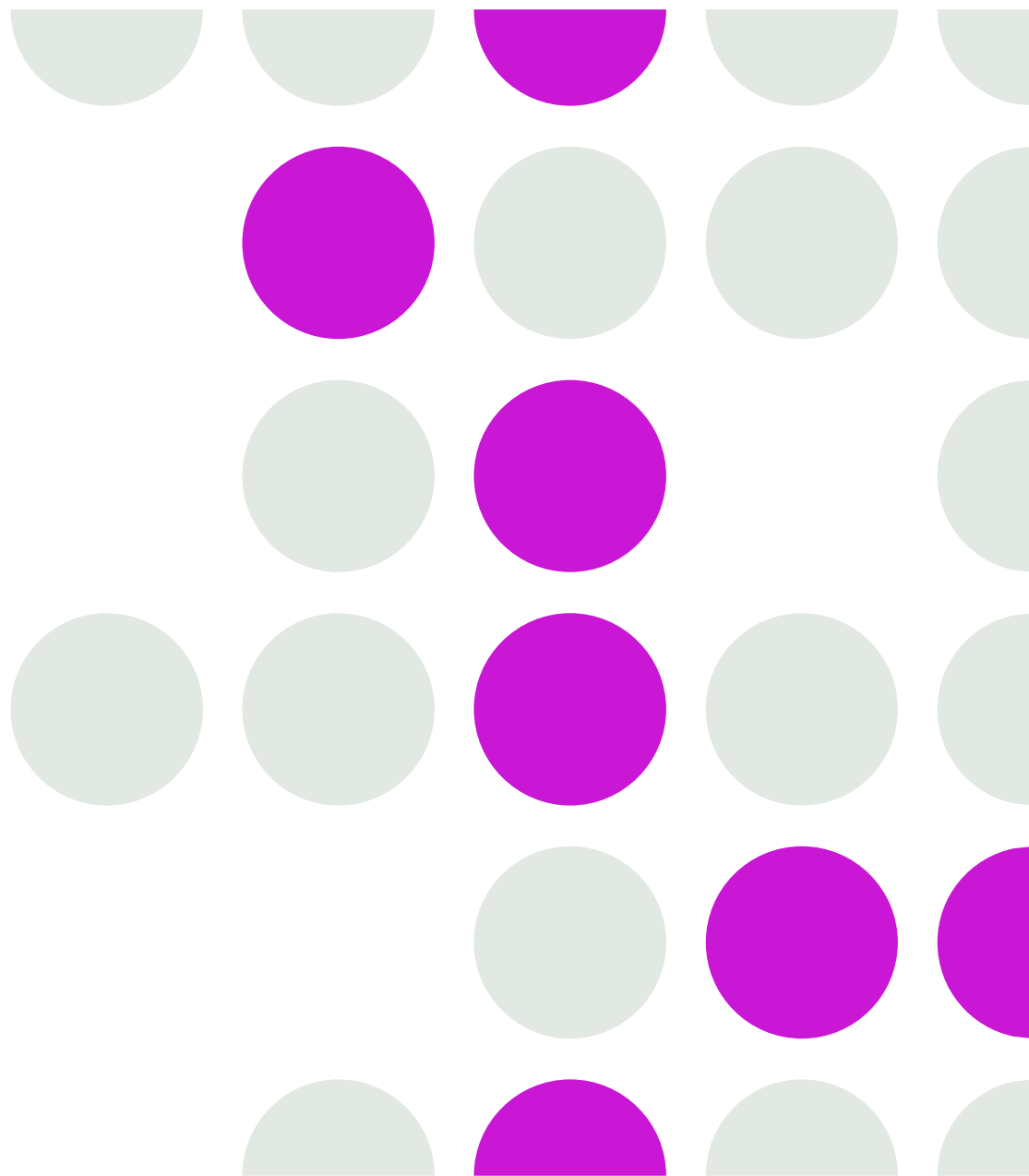
 论文稿-超级最终版.docx

 论文稿-初版.docx

 论文稿-最终版.docx

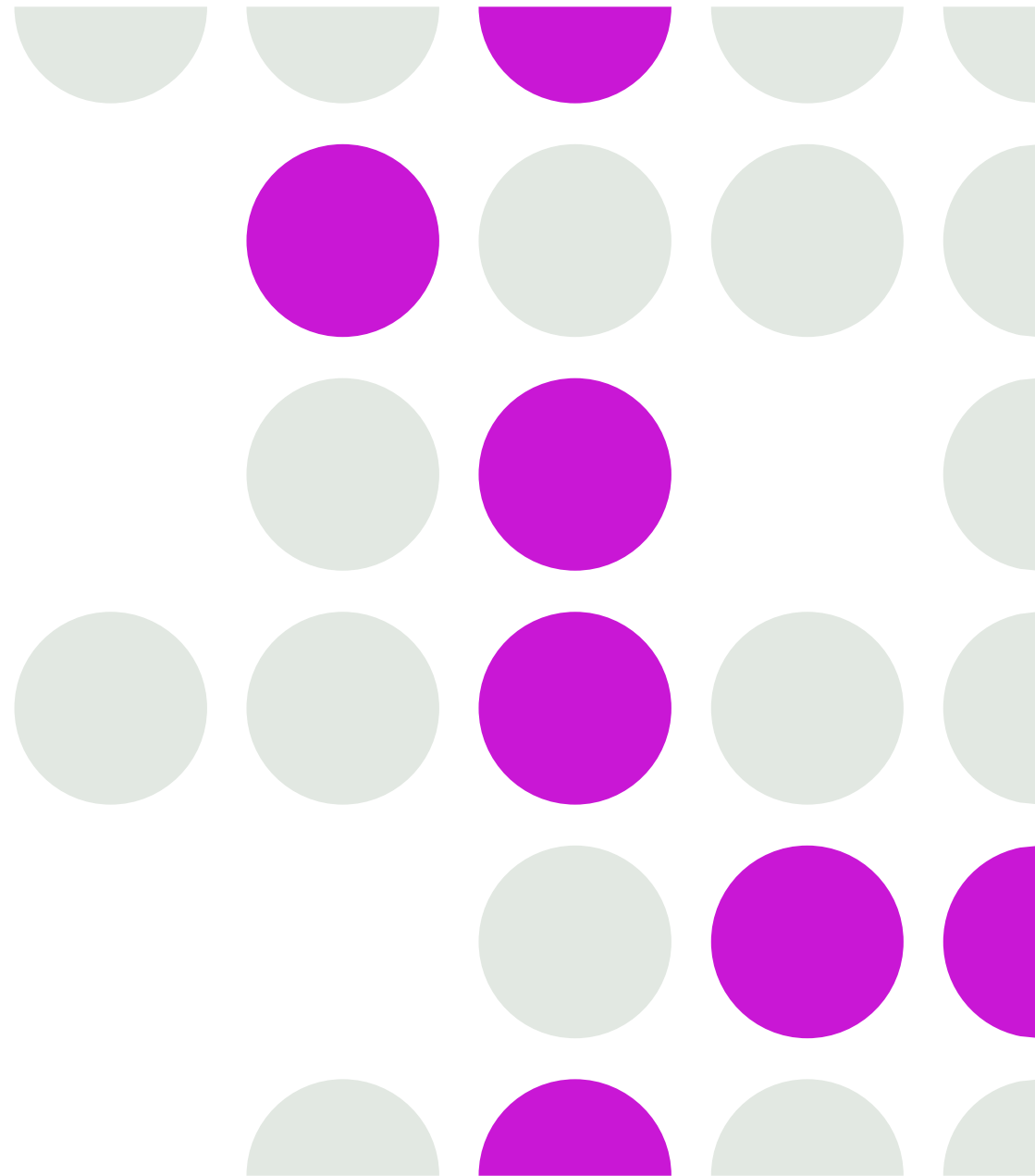
Version Control 版本控制

- 如果有一个软件，不但能自动帮我记录每次文件的改动，还可以让同事协作编辑，这样就不用自己管理一堆类似的文件了，也不需要把文件传来传去。如果想查看某次改动，只需要在软件里瞄一眼就可以，岂不是很方便？
-



Git

- 是一个分布式版本控制软件，最初由Linus Torvalds创作，于2005年以GPL许可协议发布。最初目的是为了更好地管理Linux内核开发而设计。
 - 采用 Git，你只需用 `git log`，`git checkout` 和 `git diff`，不再需要来回粘贴
 - Git 不等于 GitHub
-



Git

```
git config --global user.email "you@example.com"
```

```
git config --global user.name "Your Name"
```

```
git init
```

```
git add <file path/file name>
```

```
git commit -m "<message>"
```

```
git checkout -- <filename>
```

```
git reset --hard <head>
```

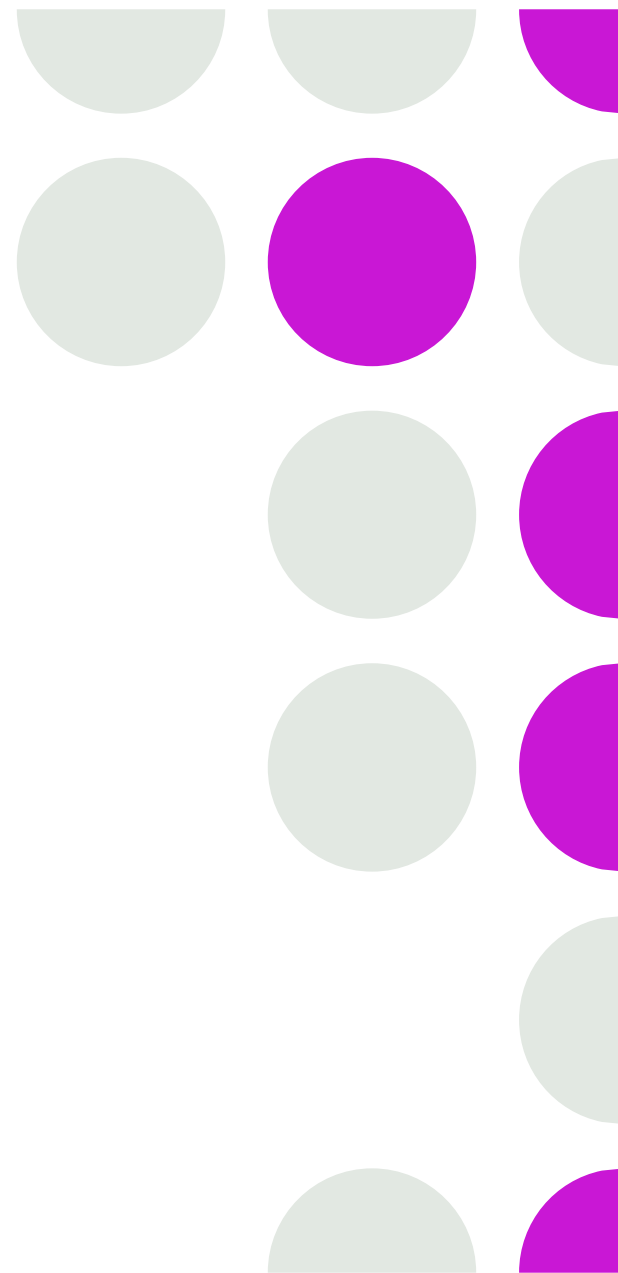
```
git log
```

```
git clone <remote repo>
```

```
git push <remote repo>
```

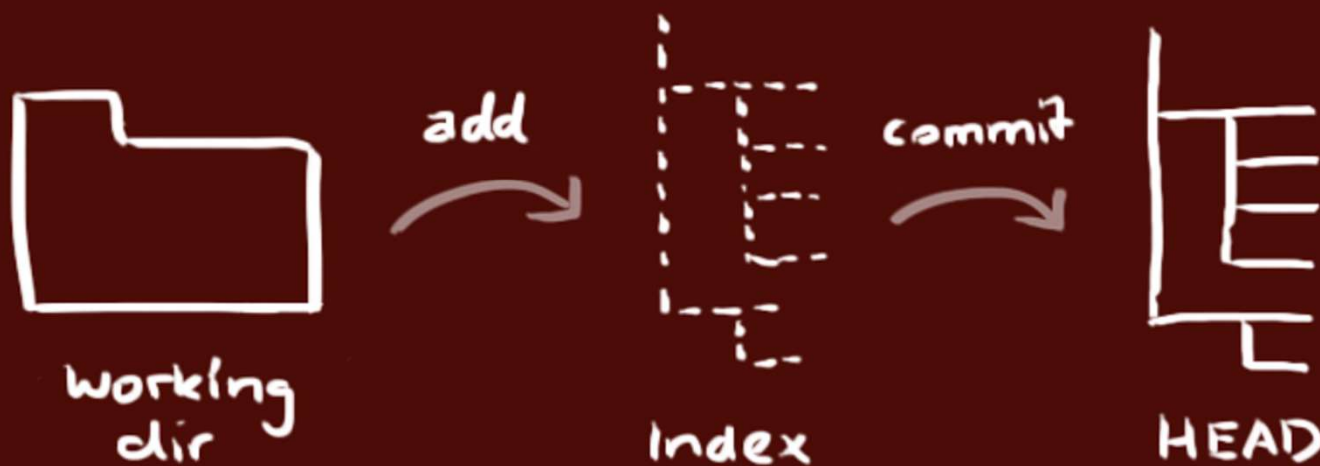
Git

- 安装
 - 创建仓库/克隆仓库
 - 工作流
 - 添加和提交
 - 替换本地改动
 - 推送改动
-



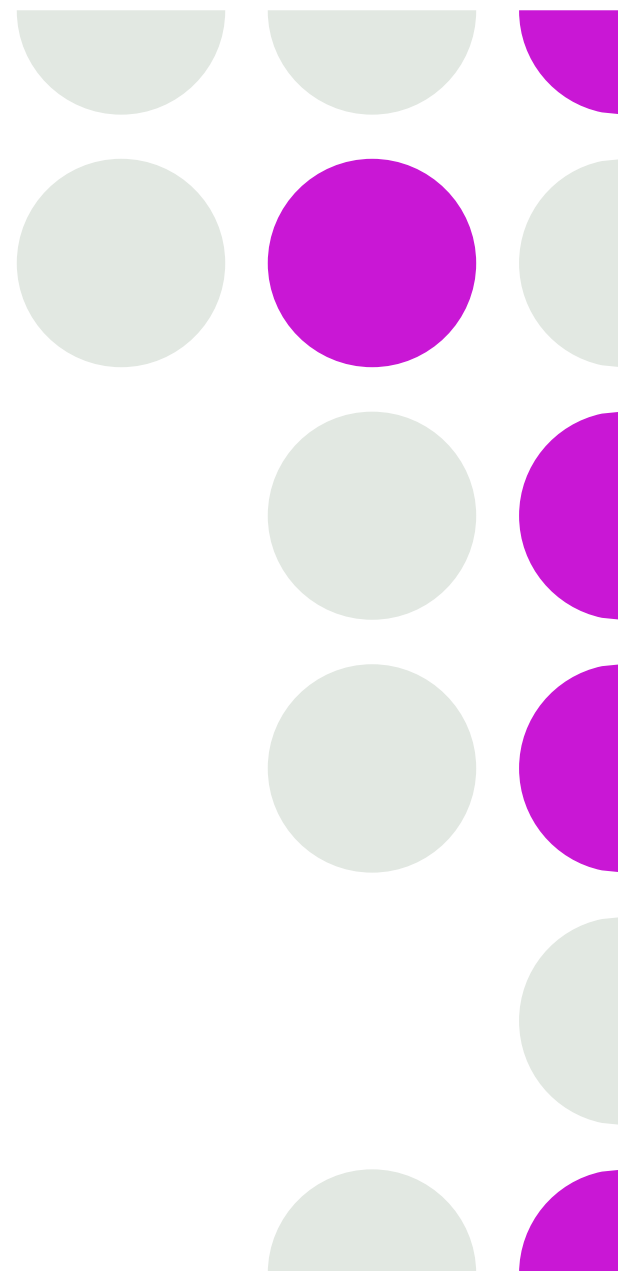
工作流

你的本地仓库由 git 维护的三棵“树”组成。第一个是你的 **工作目录**，它持有实际文件；第二个是 **暂存区 (Index)**，它像个缓存区域，临时保存你的改动；最后是 **HEAD**，它指向你最后一次提交的结果。



参考资料

- [GitHub](#)
 - [GitHub Docs](#)
 - [GitHub - 维基百科，自由的百科全书 \(wikipedia.org\)](#)
 - [GitHub 简介 - Training | Microsoft Learn](#)
 - [Git \(git-scm.com\)](#)
 - [LUG 每周小聚 - LUG @ USTC](#)
-



结语

考虑到讲座受众群体和趣味性，删除了一些内容。如果有机会，未来可能会和大家分享的相关内容：

- CI/CD : GitHub Actions
 - Pull request / Git : merge rebase
 - Vercel 部署
-