

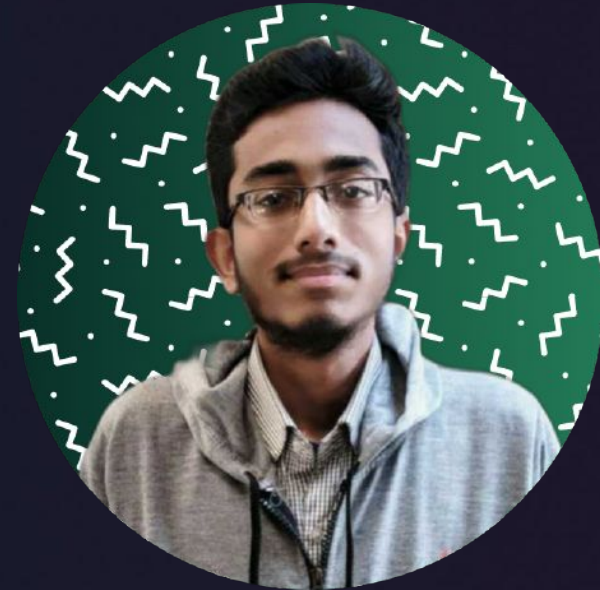
Undo git, say whaaat!



@bhupeshimself

\$ about me

- write software; read software
- Love's to write
- Loves working with DevTools
- More @ bhupesh.me/about
- Twitter @ [bhupeshimself](https://twitter.com/bhupeshimself)



A look into the present & past

- In use for more than 15 years, 40+ releases
- Millions of users
- More than 100k Stack Overflow questions

What about Developer Experience?



A typical git user journey

“Oh wait, I deleted the auth-jwt branch without merging!! Damn it!”

Opens browser, Googles, “How to restore a deleted branch”

Wastes 5 minutes reading the SO thread,

Brain context switch, losses focus

Copies & Runs one of the mentioned commands

Tries to resume the work

By now, you have totally lost your focus on what you were doing or were supposed to do!

Hold on, there is still hope

- Every git command is an algorithm, every git command that fixes something wrong with git is also an algorithm
- Very few things that can't be undone*
- Endless resources to refer from

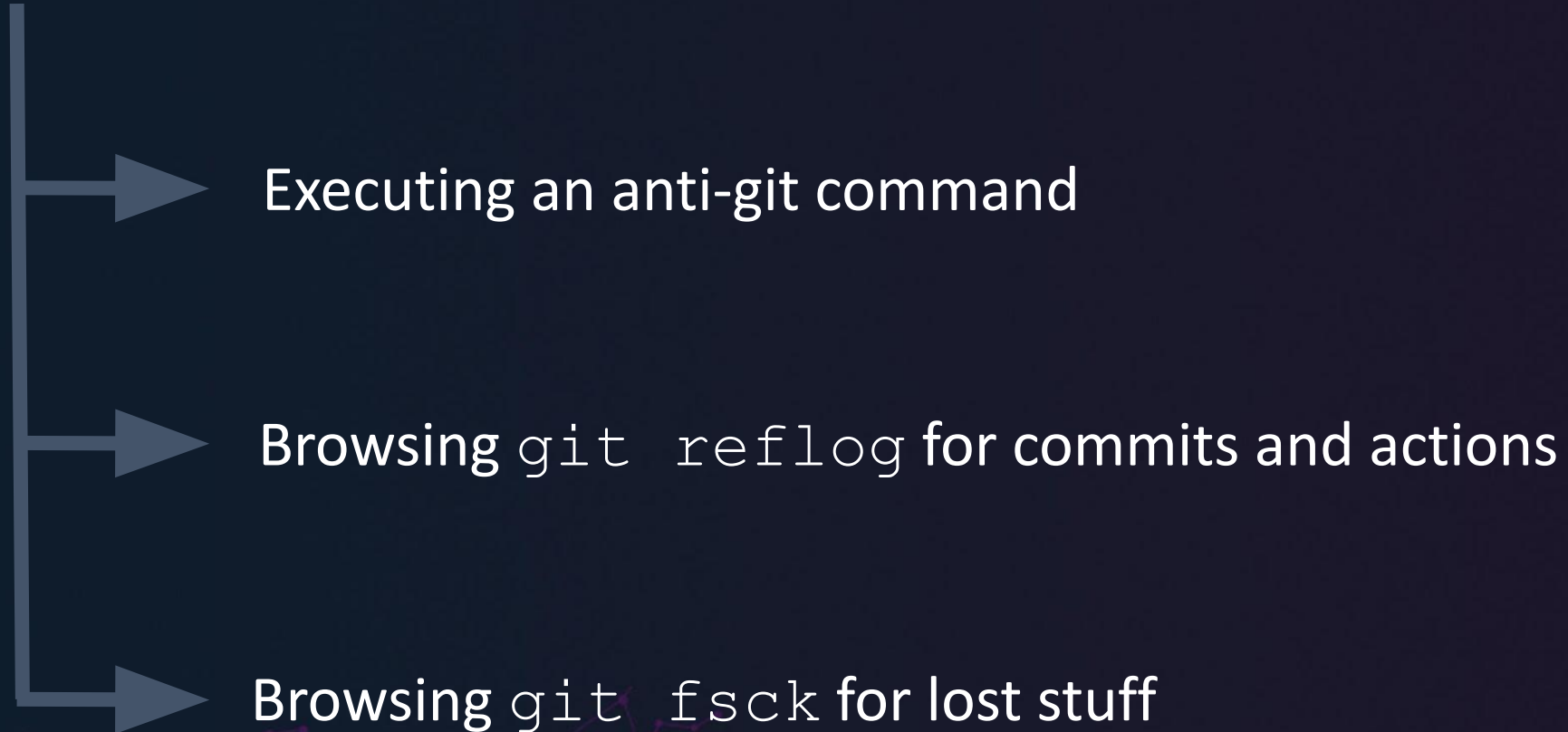
So, what's the deal?

We need git tooling to solve the pain points of git!

Community already at work

- delta ([dandavison/delta](https://github.com/dandavison/delta))
 - git-standup ([kamranahmedse/git-standup](https://github.com/kamranahmedse/git-standup))
 - git-extra-commands ([unixorn/git-extra-commands](https://github.com/unixorn/git-extra-commands))
- More than 1000 Stack Overflow questions about “undoing git”, with more than 2000 answers to these questions
 - Feelings resonate from Junior to Senior Developers
 - You don't have to be a “git guru”

Git Undo Concepts



Executing Anti-Git Commands

- An atomic (or combination of) git command(s) which helps restore the actions/results of another git command
- Examples:
 - **git reset** to undo **git reset**
 - **git stash show -p | git apply --reverse** to undo **git stash apply**

Browsing git reflog

Records actions which modify the working tree (track the latest HEAD):

- commits
- pulls
- checkouts

Used for undoing following operations:

- git branch delete
- git reset
- recover deleted/lost stash entry
- recover deleted git tag

Browsing git reflog

```
😊 ➤ git reflog
8a13b28 (HEAD -> master, origin/master, origin/HEAD) HEAD@{0}: commit: 🚧 ignore shellcheck warning for now
9a2b077 HEAD@{1}: commit: 📄 fetch changelog after updating ugit
c768d69 HEAD@{2}: commit: 🐛 fix shellcheck issues
84d0608 HEAD@{3}: commit: 🌟 getting ready for 5.0 release
3290483 (tag: v4.1) HEAD@{4}: commit: 🚩 bump version
2878227 HEAD@{5}: commit: 🛠 get rid of header + new guide command
6c09fcd HEAD@{6}: pull: Fast-forward
e4d0854 (tag: v4.0) HEAD@{7}: commit: remove unnecessary stuff
2bef2f1 HEAD@{8}: commit: support for undoing all current uncommitted changes
aa7c3ef HEAD@{9}: clone: from https://github.com/Bhupesh-V/ugit.git
```

Browsing `git fsck`

Records and verifies lost & dangling commits which are lost due to:

- forced branch delete
- hard reset

Used for undoing following operations:

- recover deleted/lost stash entry
- recover deleted git tag

So everything can be undone 🤖

1. Unreachable objects get purged by git's garbage collector.
 - a. `reflogExpire` (default 90 days)
 - b. `reflogExpireUnreachable` (default 30 days)
 - c. `worktreePruneExpire`

ugit - your damage control git buddy

- Goal is to make undoing git commands easier and developer-friendly
- About a year-old project
- Can undo from 19+ git scenarios*
- More stuff incoming!

Finally, a git undo?



ugit playtime

 Constellation India



Thank You !

 Constellation India



bhupesh.me



bhupeshimself



Bhupesh-V/ugit

