CSE6242/CX4242: Data & Visual Analytics

Extremely Important: Code backup & version control

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Why back up your code?

- Computer dies, and sometimes at the most inconvenient times (e.g., right before deadline)
- Replacing computer is easy, recreating lost work and data is not.
- Polo highly recommends github.gatech.edu (i.e., git repository)
- Git is the most popular version control system in software development. https://en.wikipedia.org/wiki/Git

github.gatech.edu

- 1. Backs up code
- 2. Provides version control
 - You can revert to older versions when needed
- 3. Supports code branching and collaboration
 - Easy to collaboratively develop new features be integrating them into "main" code base
- 4. Encourages you to write a README file (readme.md), shown on your repo's landing page

Github desktop client

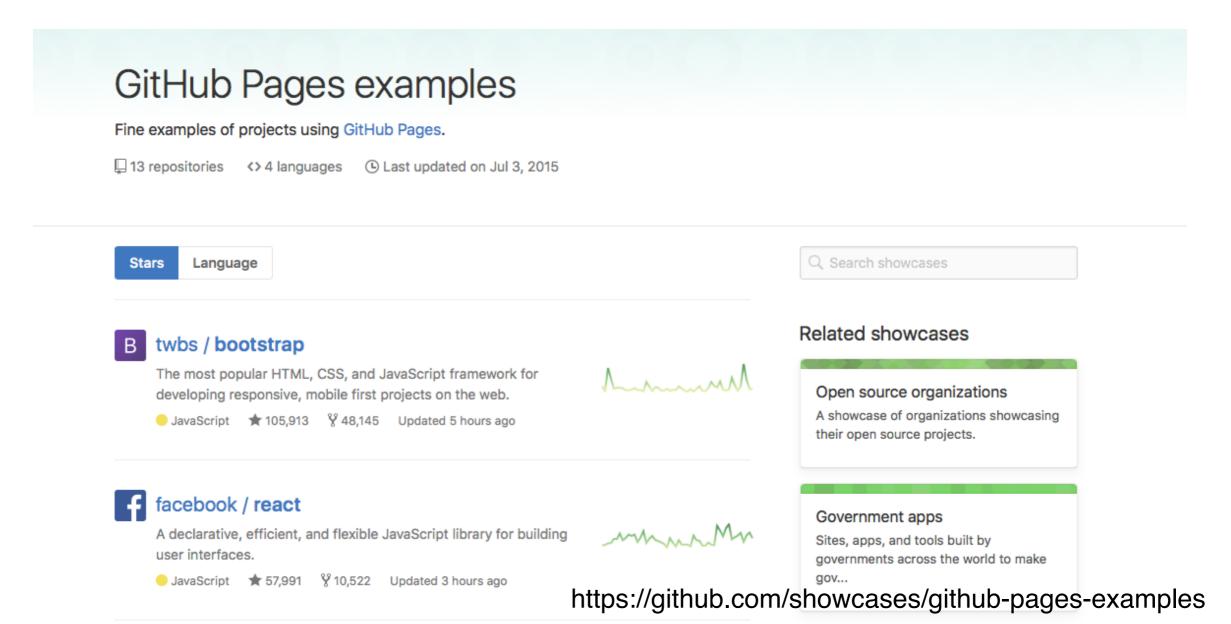
Github provides easy-to-use FREE desktop clients for Mac and Windows (https://desktop.github.com)

- If you're new to Git/Github
- Or if you like GUI
- Or if you don't like typing commands

```
Current repository
                                            Current Branch
                                            progress-reporting
                                                                                 Publish this branch to GitHub
   Changes •
                         History
                                        app/src/ui/app.tsx
                                                           @@ -956,6 +956,8 @@ export class App extends React.Component<IAppProps, IAppState> {
             1 changed file
                                                     956
                                           956
app/src/ui/app.tsx
                                                                const state = selection.state
                                            957
                                                     957
                                                                const remoteName = state.remote ? state.remote.name : null
                                           958
                                                     958
                                                     959
                                                                const progress = state.pushProgress || state.pullProgress
                                                     960
                                                                return <PushPullButton
                                            959
                                                     961
                                                                  dispatcher={this.props.dispatcher}
                                                     962
                                            960
                                                                  repository={selection.repository}
                                                     963
                                            961
                                                           @@ -963,7 +965,7 @@ export class App extends React.Component<IAppProps, IAppState> {
                                                                  remoteName={remoteName}
```

Github Pages as free websites

- One click to enable for your GitHub repo.
- This course's website is a GitHub Page.
- Can host interactive tools (e.g., <u>Diffusion Explainer</u>, <u>Transformer Explainer</u>)
- Whenever you commit a change, your site is updated.



WARNING

Set you repo to private.

Unless you are 100% sure you want it to be public.

And you must keep your homework code private!





DATA CENTER SOFTWARE SECURITY TRANSFORMATION DEVOPS BUSINESS PERSONAL TECH SCIENCE EMERGENT TECH BOO'

Security

Dev put AWS keys on Github. Then BAD THINGS happened

Fertile fields for Bitcoin yields - with a nasty financial sting

6 Jan 2015 at 13:02, Darren Pauli









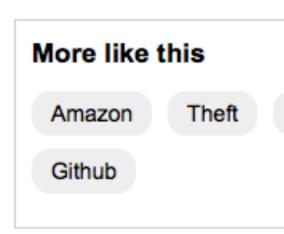
Bots are crawling all over GitHub seeking secret keys, a developer served with a \$2,375 Bitcoin mining bill found.

DevFactor founder Andrew Hoffman said he used Figaro to secure Rails apps which published his Amazon S3 keys to his GitHub account.

He noticed the blunder and pulled the keys within five minutes, but that was enough for a bot to pounce and spin up instances for Bitcoin mining.

"When I woke up the next morning, I had four emails and a missed phone call from Amazon AWS something about 140 servers running on my AWS account," Hoffman said.

"I only had S3 keys on my GitHub and they were gone within five minutes!"





- Public/private/hybr for best fit
- 1 billion+ hours oper

OneDrive

Free 1 TB of storage (+ Word, Excel, Powerpoint)

Good for general file sharing, syncing, and backup



https://ai.oit.gatech.edu/onedrive