CSE6242/CX4242: Data & Visual Analytics

#### Extremely Important: Code backup & version control

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Partly based on materials by Guy Lebanon, Jeffrey Heer, John Stasko, Christos Faloutsos

## 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. <u>https://en.wikipedia.org/wiki/Git</u>

## 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 (<u>https://desktop.github.com</u>)

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

•••		_		
Current repositor	y 🗸		nt Branch ress-repoi	rting    Publish branch Publish this branch to GitHub
Changes 🔵	History	app/src/u	i/app.tsx	
✓ 1 cha	inged file			<pre>@@ -956,6 +956,8 @@ export class App extends React.Component<iappprops, iappstate=""> {</iappprops,></pre>
		956	956	
🗹 app/src/ui/app.tsx 🧧		957	957	<pre>const state = selection.state</pre>
		958	958	<pre>const remoteName = state.remote ? state.remote.name : null</pre>
			959	<pre>+ const progress = state.pushProgress    state.pullProgress</pre>
			960	+
		959	961	return <pushpullbutton< td=""></pushpullbutton<>
		960	962	dispatcher={this.props.dispatcher}
		961	963	repository={selection.repository}
				<pre>@@ -963,7 +965,7 @@ export class App extends React.Component<iappprops, iappstate=""> {</iappprops,></pre>
		963	965	remoteName={remoteName}

### Github Pages as free websites

- One click to enable for your GitHub repo.
- This course's website is a GitHub Page.
- Whenever you commit a change, your site is updated.

☐ 13 repositories <> 4 languages ④ Last updated on Jul 3, 2015	
Stars Language	Q Search showcases
B twbs / bootstrap	Related showcases
The most popular HTML, CSS, and JavaScript framework for developing responsive, mobile first projects on the web.       ●         ● JavaScript ★ 105,913	Open source organizations A showcase of organizations showcasing
facebook / react A declarative, efficient, and flexible JavaScript library for building	their open source projects. <b>Government apps</b> Sites, apps, and tools built by governments across the world to make

# **WARNING** Set you repo to **private**.

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

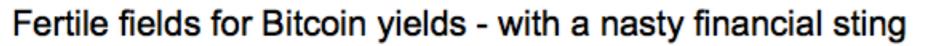
And you must keep your homework code private!



🗣 DATA CENTER SOFTWARE SECURITY TRANSFORMATION DEVOPS BUSINESS PERSONAL TECH SCIENCE EMERGENT TECH BOOT

#### Security

#### Dev put AWS keys on Github. Then BAD THINGS happened



6 Jan 2015 at 13:02, Darren Pauli

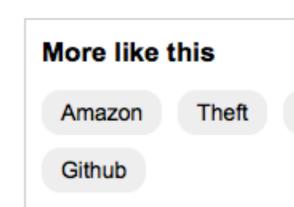
Bots are crawling all over GitHub seeking secret keys, a developer served with a \$2,375 Bitcoin mining bill found.

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!"



(in)

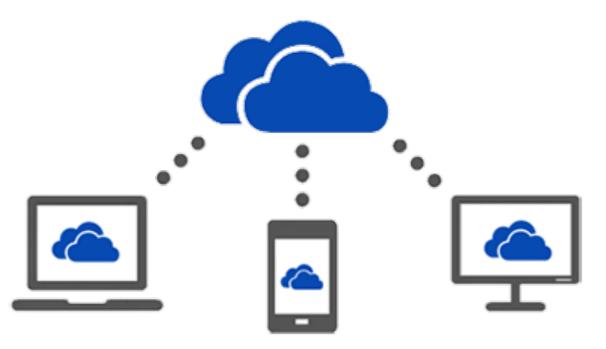


- Public/private/hybr for best fit
- -1 billion+ hours oper

http://www.theregister.co.uk/2015/01/06/dev\_blunder\_shows\_github\_crawling\_with\_keyslurping\_bots/

### OneDrive

#### Free 1 TB of storage (+ Word, Excel, Powerpoint) Good for general file sharing, syncing, and backup



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