

Rails from the Ground Up!

with Jared Richardson
RoleModel Software

Introductions

Jared

Jay

Christian

Jason

Chandler

Dayyan

Our Goal

Practical knowledge

Familiarity

Lots of typing

Follow along (for most slides)

Know how to learn

Outline

Foundations: Tools

Ruby: The basics

Ruby: With objects

Ruby: Network programming

Sinatra: Easier network programming

Rails: Introduction and overview

Rails: Deeper: writing our own app

Finally: Class Driven Details!

Text Editor

Syntax highlighting

<http://www.sublimetext.com/2>

An Aside

OS X Terminal Usage
(also linux & *nix)

Command Line

aka Terminal

ls => list files

cd -> Your home directory

cd .. -> Up one level

~ => your home directory

~/.bash_profile => runs w/new Terminal

~/.bash_history => what you've done

source ~/.bash_profile => reload

Command Line

\$PATH => path for executables

set path in ~/.bash_profile

/etc/bashrc => system wide changes

chmod => changes permissions

chown => changes owner

cat <file_name> => Shows the file

more <file_name> => Shows file 1 page @ time

Back to Ruby Tools

Tools That Build Tools

brew

Downloads source

Compiles & Installs

Scripts are in Ruby

Install Brew

Search “osx brew”

<http://mxcl.github.com/homebrew>

Install git

brew install git

Git

Distributed Version Control

New paradigm

Everyone has the repo

Git History

Created by Linus Torvalds

2005

For the linux kernel

Open source

Design Goals

Not CVS/SVN :)

Distributed workflow

Safe (e.g. corruption)

Fast

Why Git (for us)?

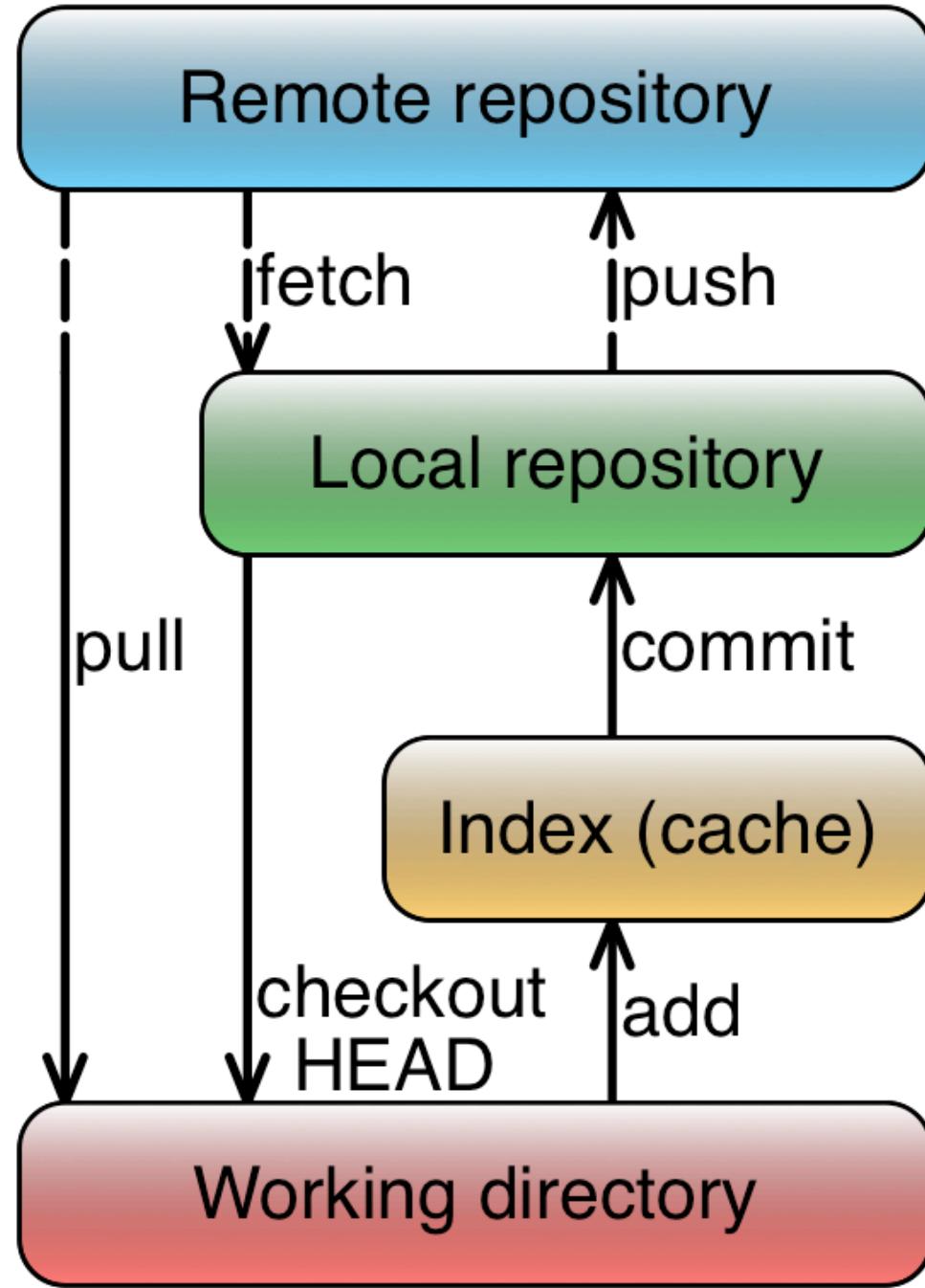
Community standard for Ruby/Rails

Merging

Speed

Portable

<https://github.com/>



Commands

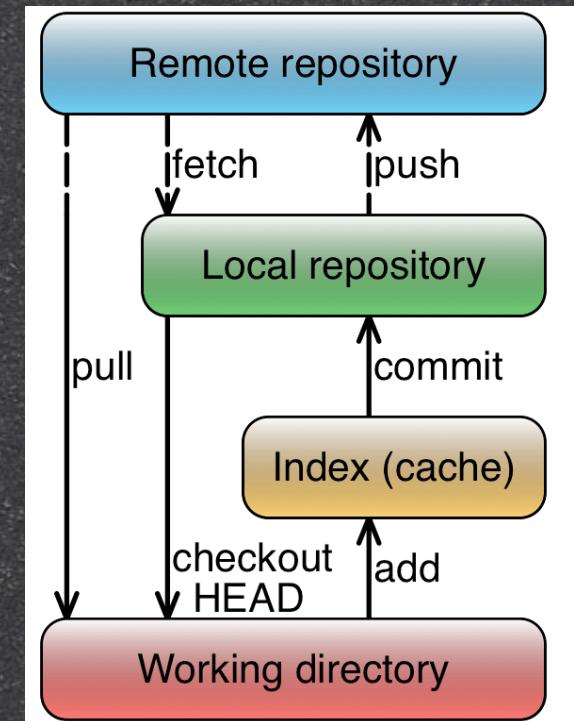
git pull <url>

git add <file or directory>

git commit -m <message>

git push

git checkout <filename>



Create a Local Repo

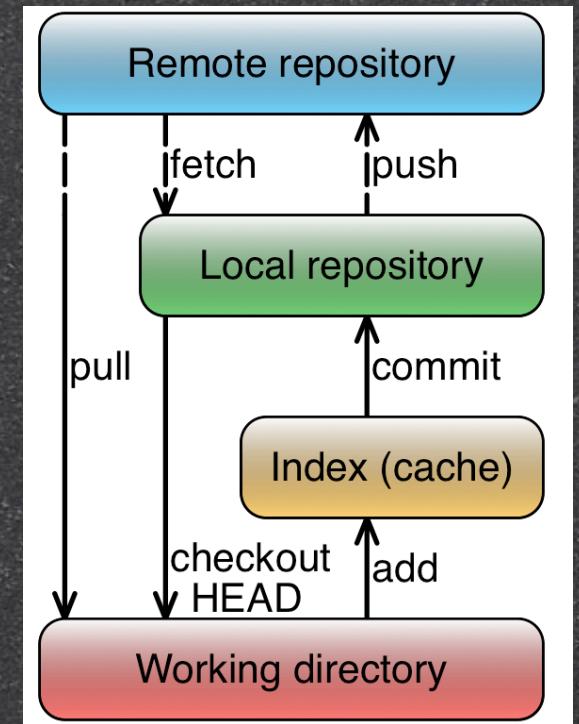
```
mkdir rails_class
```

```
cd rails_class
```

```
git init
```

```
touch README
```

Initialized empty Git repository in ~/workspaces/ruby_class/.git/

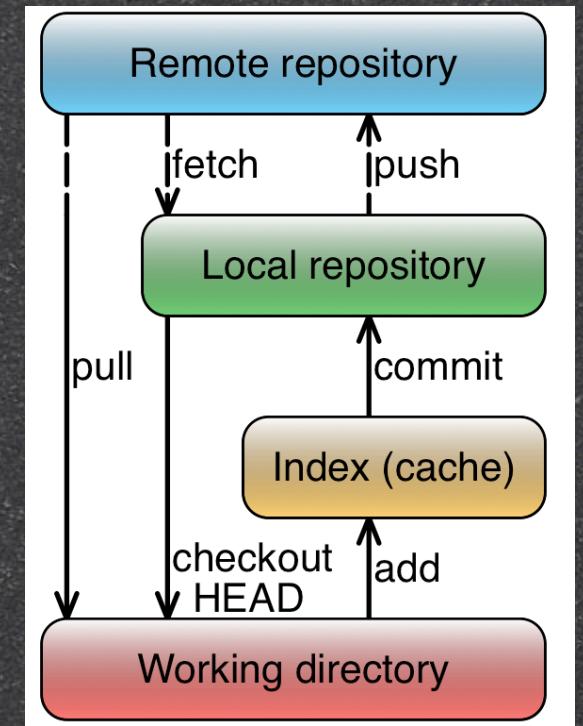


Add Files

git add README

OR

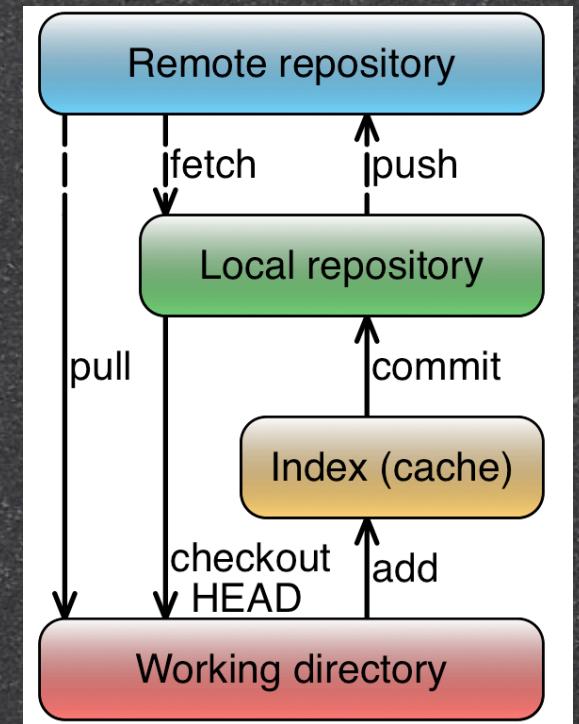
git add .



Create a Remote Repo

`git remote add <scp creds>`

`git push`



Client Configuration

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

```
git config --global user.email you@???.com
```

```
git config --global color.ui auto
```

```
git config --global color.interactive auto
```

More Help

`git help`

`git help <command>`

Cell Numbers

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Check Out Code

```
git clone git://github.com/  
jaredrichardson/RailsFromTheGroundUp.git
```

What Did You Get?

git log

git log <file_name>

Update Your Config

Edit first two lines

Move to `~/.gitconfig`

An Aside

OSX for hackers

<https://gist.github.com/2260182>

Now . . .

return to ruby_class_one

git log

git l

Add a File

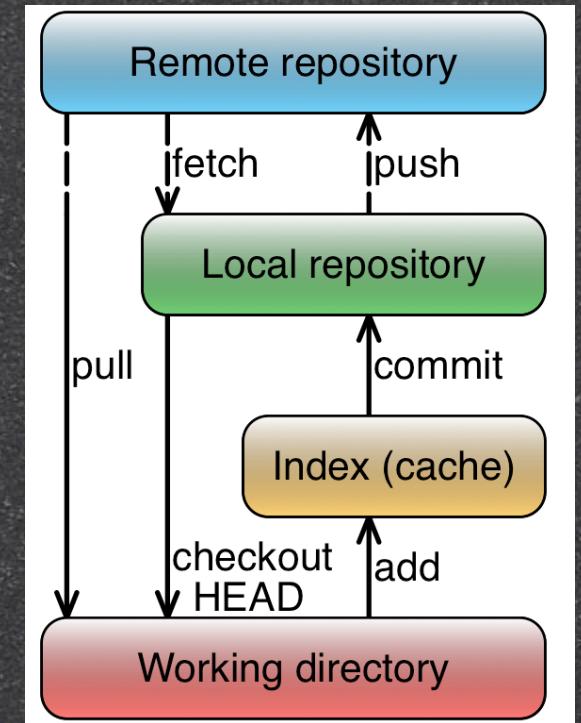
Create new_file_<initials>

git add <file>

git commit -m “<message>”

git push

But wait...

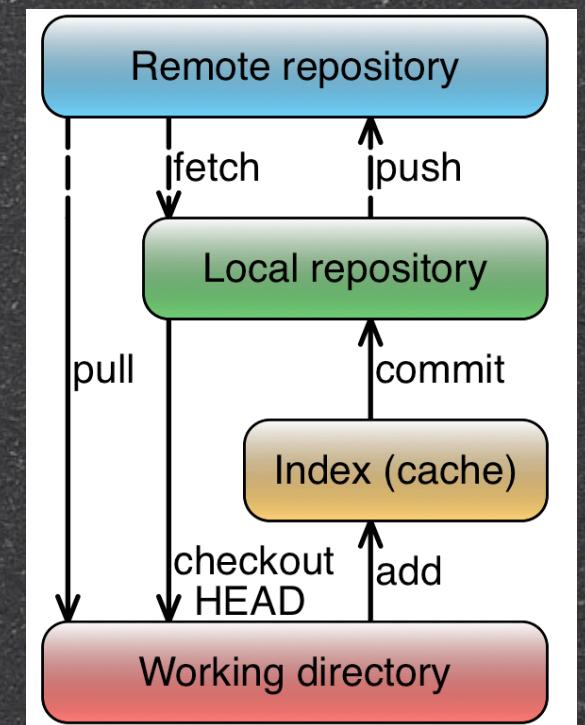


You Don't Have Write Access to the Repo!

What step would fail?

push

You need Github accounts



github . com

The screenshot shows the GitHub homepage with a comparison section. On the left, 'git' is shown with its pronunciation '/git/' and a brief description: 'Git is an extremely fast, efficient, ideal for the collaborative development'. Below this is a link to the Git page. On the right, 'GitHub' is shown with its pronunciation '/git.hʌb/' and a more detailed description: 'GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your **public** and **private** git repositories'. Below this is a link to the GitHub page. A large blue button at the bottom center reads 'Plans, Pricing and Signup' with the subtext 'Unlimited public repositories are free!'. At the very bottom, a horizontal bar lists additional features: 'Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...'

github

Signup and Pricing Explore GitHub Features Blog Login

1,352,964 people hosting over 2,234,220 repositories

git /'git/
Git is an extremely fast, efficient, ideal for the collaborative development

git·hub /'git,hʌb/
GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your **public** and **private** git repositories.

git /'git/
Git is an extremely fast, efficient, distributed version control system ideal for the collaborative development of software.

GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your **public** and **private** git repositories.

Plans, Pricing and Signup
Unlimited public repositories are free!

Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...

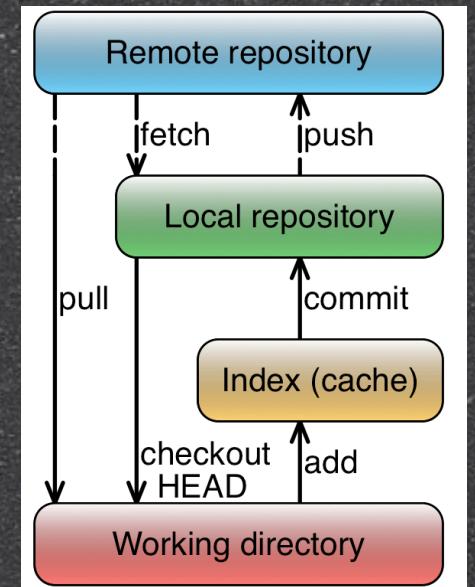
Clone a Repo

```
mkdir class
```

```
cd class
```

```
git clone
```

<https://github.com/jaredrichardson/RailsFromTheGroundUp>



Github

- 1.Create free github accounts
- 2.Create public/private keys
- 3.Put your public key in github
- 4.Clone the class repository

Sign up for GitHub

[Log in to an existing account](#)

\$0/mo

You are signing up for the **free** plan

The cost for this plan is **\$0 per month**. You can cancel, downgrade, or upgrade at any time.

Create your free personal account

Username

Email Address

We promise we won't share your email with anyone.

Password

Must contain one lowercase letter, one number, and be at least 7 characters long

Confirm Password

By clicking on "Create an account" below, you are agreeing to the
[Terms of Service](#) and the [Privacy Policy](#).

[Create an account](#)

facebook

twitter

mozilla

37signals



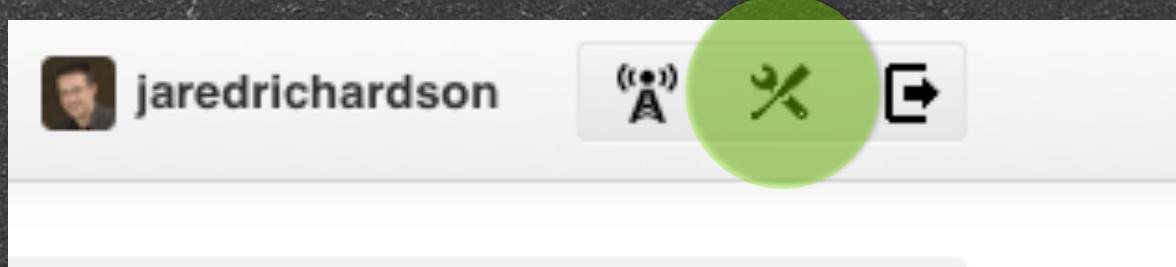
You're joining the smartest companies in the world

- ✓ **Email support**
- ✓ **Upgrade, downgrade or cancel at any time**
- ✓ **Secure, reliable, always-available repository hosting**

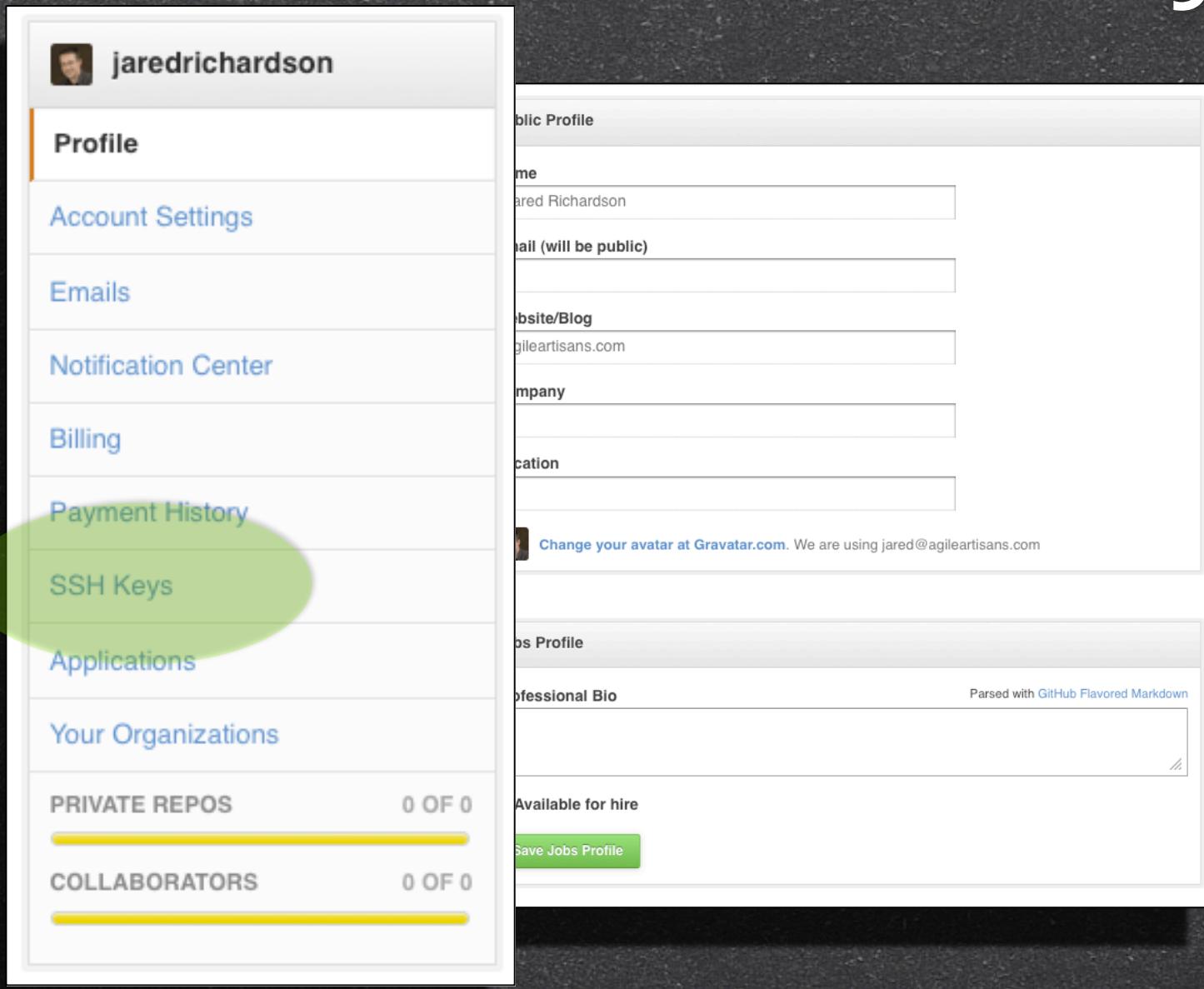
Add a Public Key

Top right hand corner

Click account settings



Add a Public Key



The screenshot shows a GitHub user profile for "jaredrichardson". The left sidebar lists various settings: Profile (selected), Account Settings, Emails, Notification Center, Billing, Payment History, SSH Keys (highlighted with a green oval), Applications, Your Organizations, PRIVATE REPOS (0 OF 0), and COLLABORATORS (0 OF 0). The main content area displays the "Public Profile" section, which includes fields for Name (Jared Richardson), Email (will be public), Website/Blog (agileartisans.com), Company, and Bio. A note at the bottom of this section says, "Change your avatar at Gravatar.com. We are using jared@agileartisans.com". Below this is the "Jobs Profile" section, featuring a Professional Bio field (parsed with GitHub Flavored Markdown) and an "Available for hire" checkbox. A green "Save Jobs Profile" button is visible.

jaredrichardson

Profile

Account Settings

Emails

Notification Center

Billing

Payment History

SSH Keys

Applications

Your Organizations

PRIVATE REPOS 0 OF 0

COLLABORATORS 0 OF 0

Public Profile

Name
Jared Richardson

Email (will be public)

Website/Blog
agileartisans.com

Company

Bio

Change your avatar at [Gravatar.com](#). We are using jared@agileartisans.com

Jobs Profile

Professional Bio Parsed with GitHub Flavored Markdown

Available for hire

Save Jobs Profile

Creating an SSH Key

First, CHECK for an existing key!!

Open Terminal (on your Mac)

```
$ ls ~/.ssh OR mkdir ~/.ssh
```

```
$ ssh-keygen -t rsa
```

```
$ ls ~/.ssh
```

```
$ chmod 700 ~/.ssh
```

```
$ chmod 600 ~/.ssh/id_rsa
```

Public/Private Key Pair

Private key => id_rsa

Public key => id_rsa.pub

Never share the private!

Share the public anywhere

```
$ cat ~/.ssh/id_rsa.pub
```

Back to Github

Click SSH Keys

Click Add New SSH Key

Paste in your PUBLIC key

Now You Can Add!
after you clone the
proper URL

Add a File

In student_files

Create new_file_<initials>

Add text or copy mine

git add <file>

git commit -m “<message>”

git push

