# Getting started with Git

| COLLABORATORS | | | |
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| | *TITLE* :<br><br>Getting started with Git | | |
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| REVISION HISTORY | | | |
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## 0.1 Installing Git

*On linux* you can use the package management system available on your distribution such as

```
sudo apt-get install git-core
```

on the Ubuntu distribution and

```
emerge git
```

on the Gentoo distribution.

*On Windows*To install Git on Windows, Sysgit will have to be downloaded from http://code.google.com/p/msysgit/downloads/-list and to install run the executable.

*On Mac OSX*To install Git on Mac OSX, One has to download the git-osx-installerhttp://code.google.com/p/git-osx-installer/ one can then use a packgage management system such as MacPorts or Homebrew to install Git.

## 0.2 Generationg SHH key

### 0.2.1 Linux

You bring up your favorite teminal and execute the command

```
sifiso@gustav:~$ ssh-keygen -t rsa -C "sifiso@solms.co.za"
Generating public/private rsa key pair.
Enter file in which to save the key (/home/sifiso/.ssh/id_rsa):
```

### 0.2.2 Windows

Once Sysgit is install there will be Git Bash available on the your machine. After you have brought Git Bash up you can run

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

You can accept the deafult location or choose your preferred location to save the generated keys.After that it will ask you for the passphrase use can choose one or can leave it blank as a time the whole point of generation keys is to enable you to do full auto-login.

### 0.2.3 Mac OSX

To generate SSH key on Mac OS you lauch the terminal and execute the command

```
sifiso@gustav:~$ ssh-keygen -t rsa -C "sifiso@solms.co.za"
Generating public/private rsa key pair.
Enter file in which to save the key (/home/sifiso/.ssh/id_rsa):
```

## 0.3 Setting Up

To set up Git you will need to copy the key to the Git repository in our case *GitHub.*

First you will need to have an accout with GitHub, if you do not please create one. Once you are logged in you can copy the key containd in the *id_rsa.pub.* On windows you can copy to clipboard then paste on GitHub

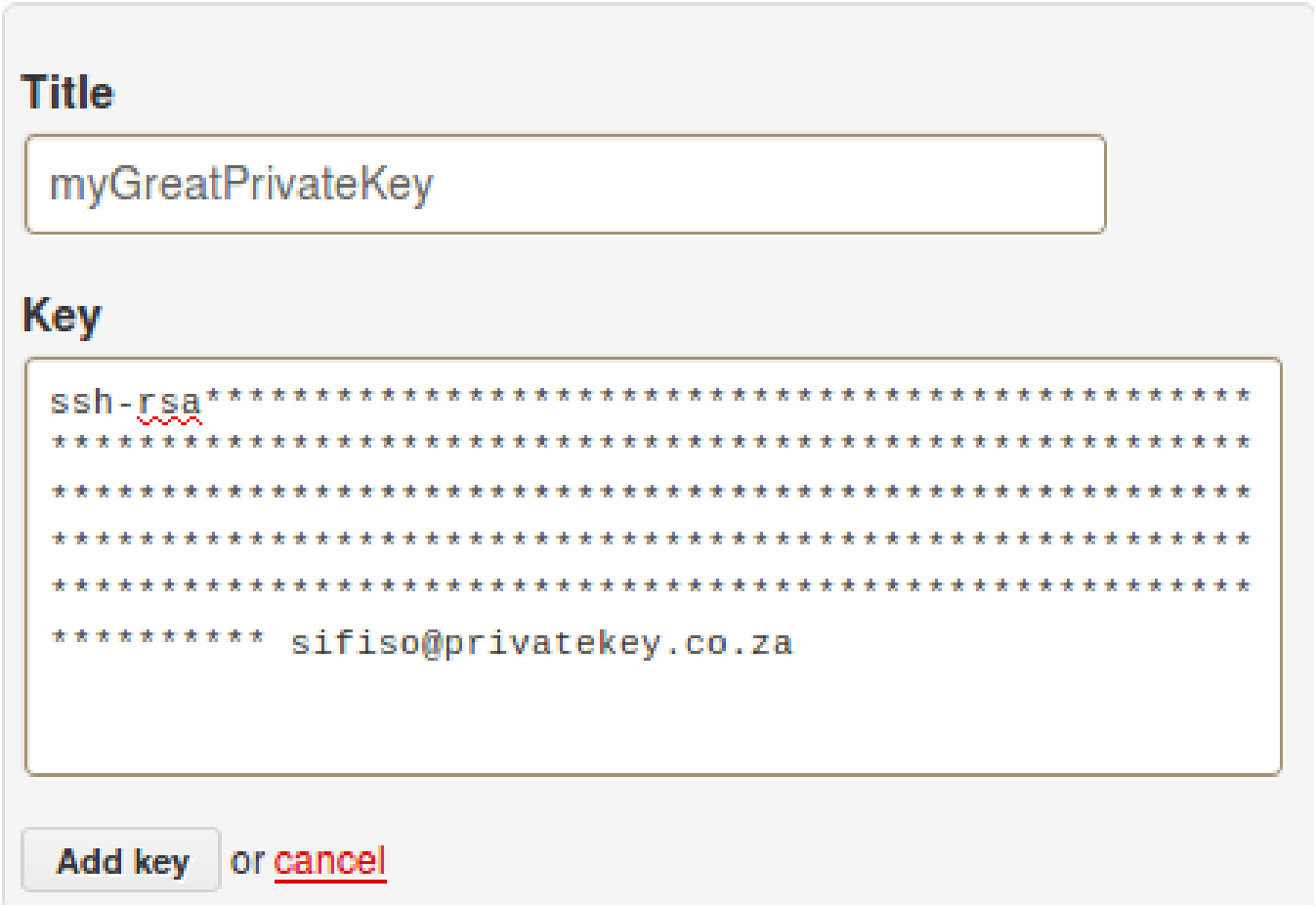


Figure 1: GitHub Private Key

For linux you will need to use xclip to copy. On Ubuntu you will run

```
$ sudo apt-get install xclip
$ cat ~/.ssh/id_rsa.pub | xclip -sel clip
```

On Gentoo run

```
$ emerge xclip
$ cat ~/.ssh/id_rsa.pub | xclip -sel clip
```

Then you can paste generated private key on GitHub and save it. Then go back to the terminal run

```
ssh git@github.com
```

```
sifiso@gustav:~$ ssh git@github.com
PTY allocation request failed on channel 0
ERROR: Hi SifisoMotha! You've successfully authenticated, but GitHub does not provide shell ↩
     access  ↩

    Connection to github.com closed.
sifiso@gustav:~$
```

If you get a message like this one, Your account setup settup was successful. You can process to initializing your enviroment.

## 0.4 The Basics

The set up you name and email address for all you Git repositories. You execute

```
$ git config --global user.name "Sifiso Motha"
$ git config --global user.email "sifiso@solms.co.za
```

These are saved in ~/.gitconfig. Top check if there have been set up correctory you run command

```
 git config user.name
```

To initialize a new Git repository will run

```
$ mkdir myFristProject
$ cd myFristProject
$ git init
```

Once the repository is initialized you add and commint file.

```
$ git add .
    $ git commit -m 'my first commit'
```

To clone a Git repository, what would call checkout on version control system such as Subvesion.

```
 git clone git@github.com:urdadmde/repo.git
```

For futher commands on Git you can consult the Git manual and other tutorials available on the net