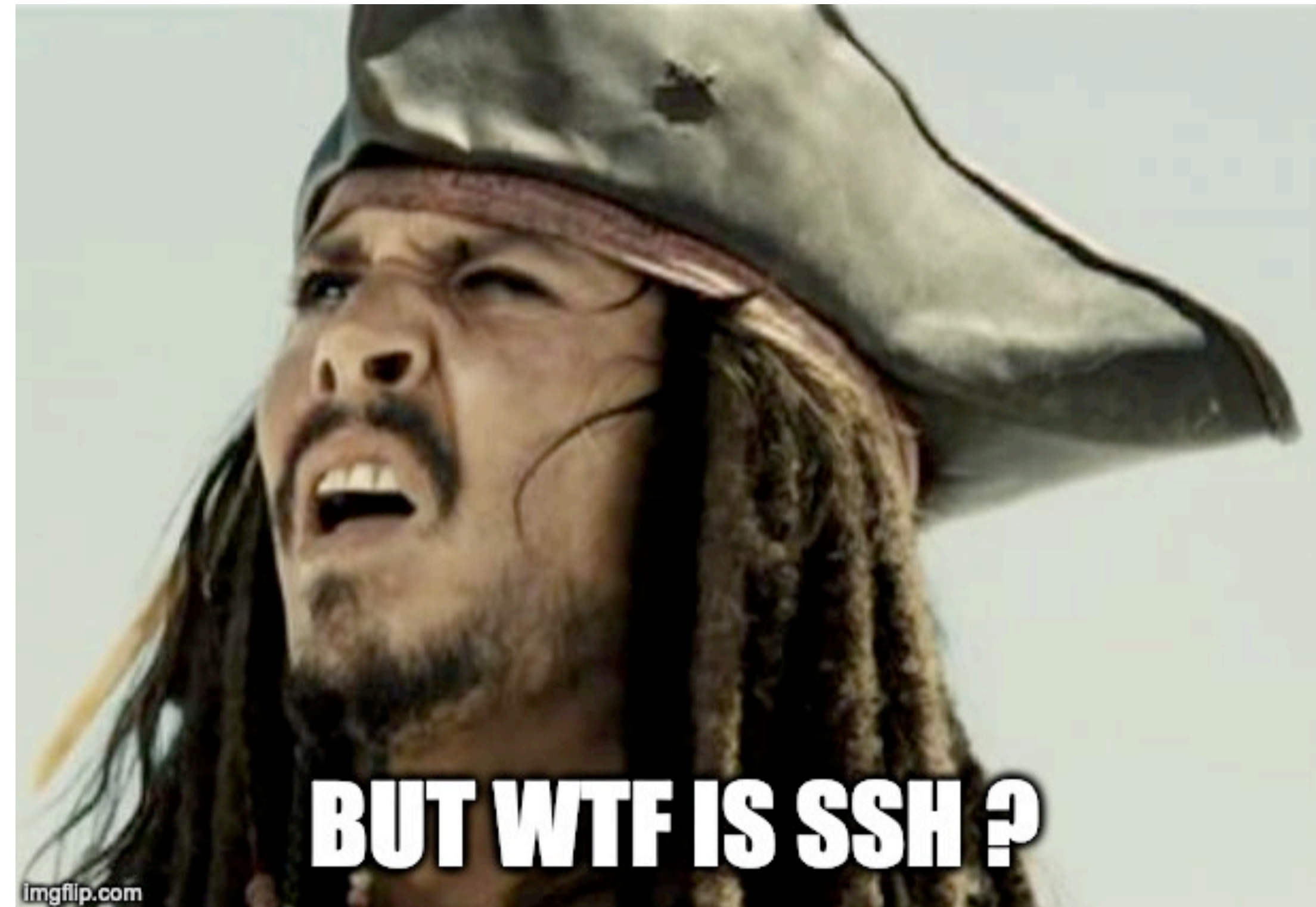


SSH & Labos

2023-10-03 Guy-Laurent & Didier

ssh
WTF?

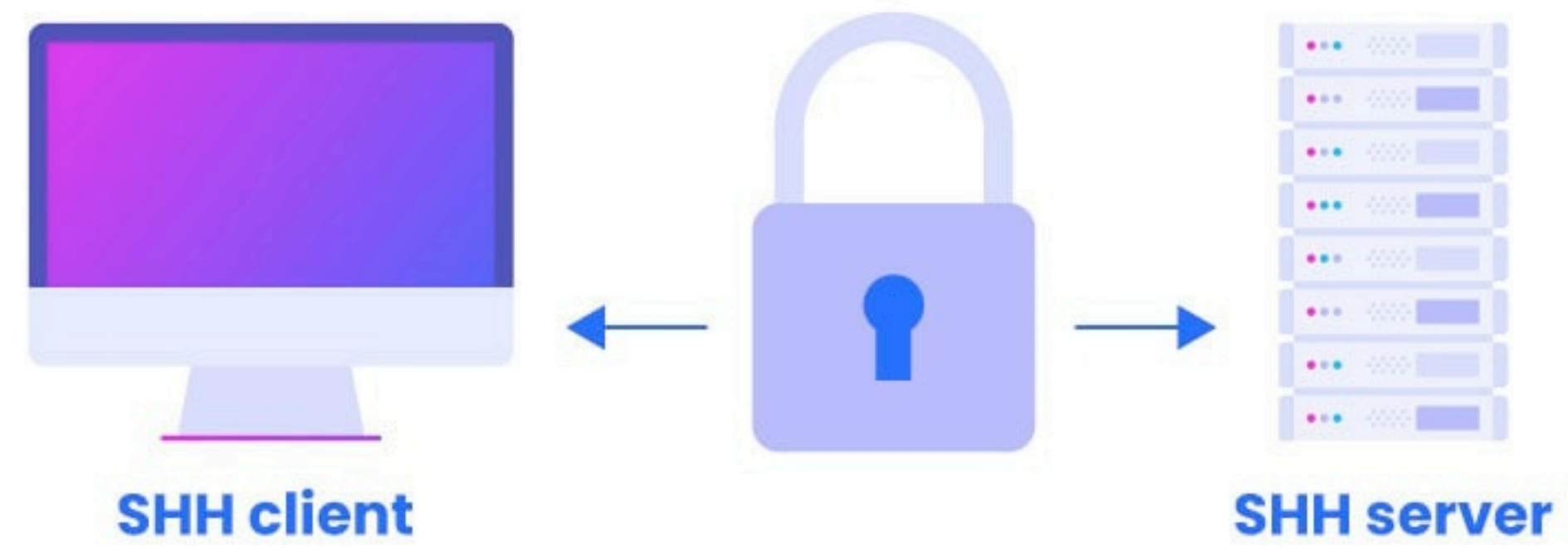


ssh

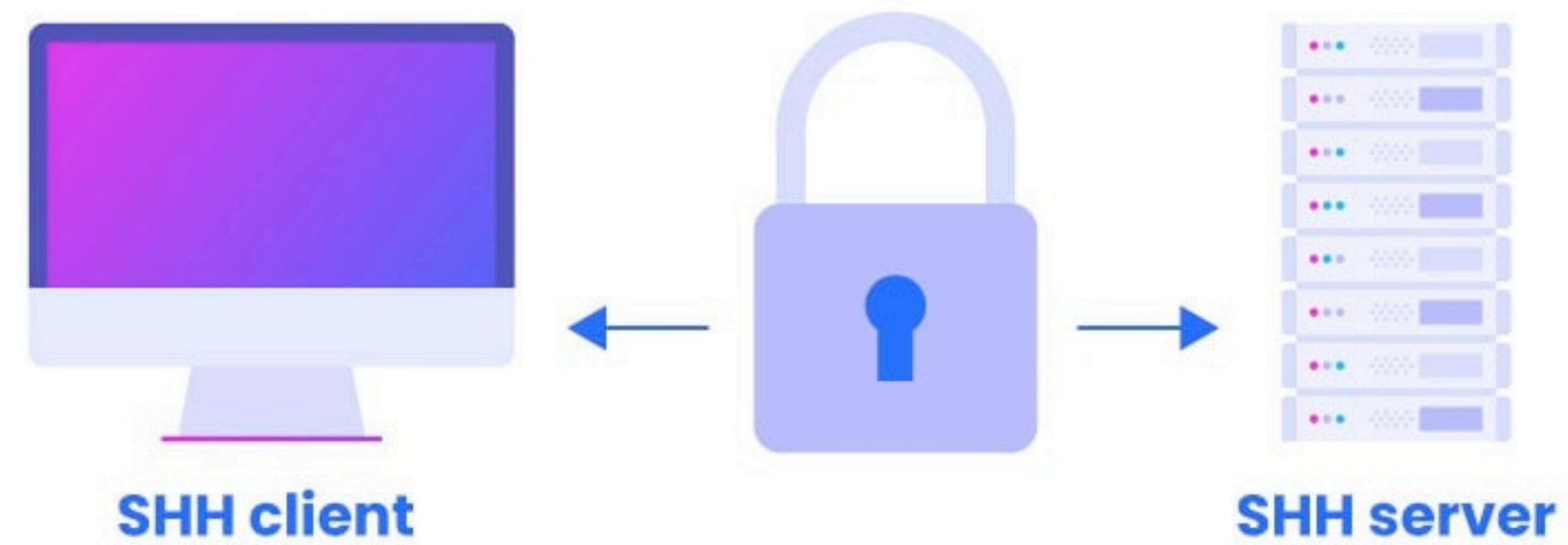
“SSH (Secure Shell) est comme le videur de l'internet, vous permettant de vous faufiler dans le club VIP de votre ordinateur à travers des tunnels secrets, tout en maintenant les pirates informatiques à distance avec des poignées de main cryptographiques sophistiquées. 🕵️🔒👜”

ChatGPT, 2023

ssh

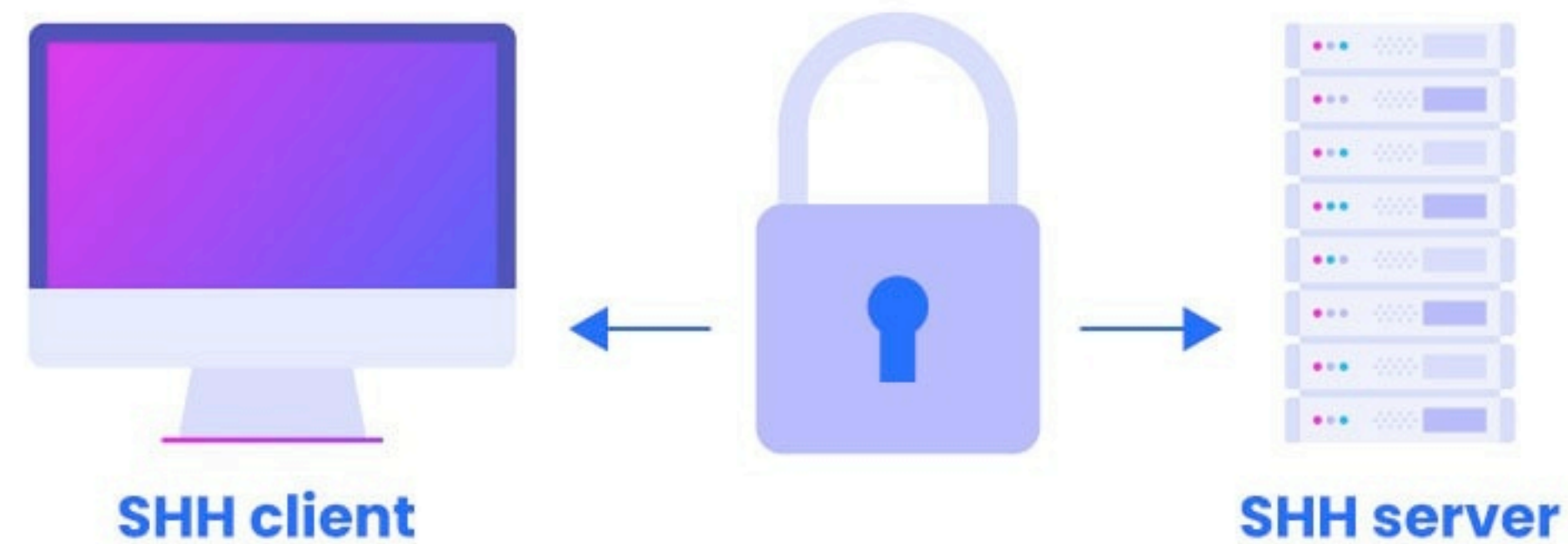


ssh



```
ssh <remote username>@<remote ip>
```

ssh

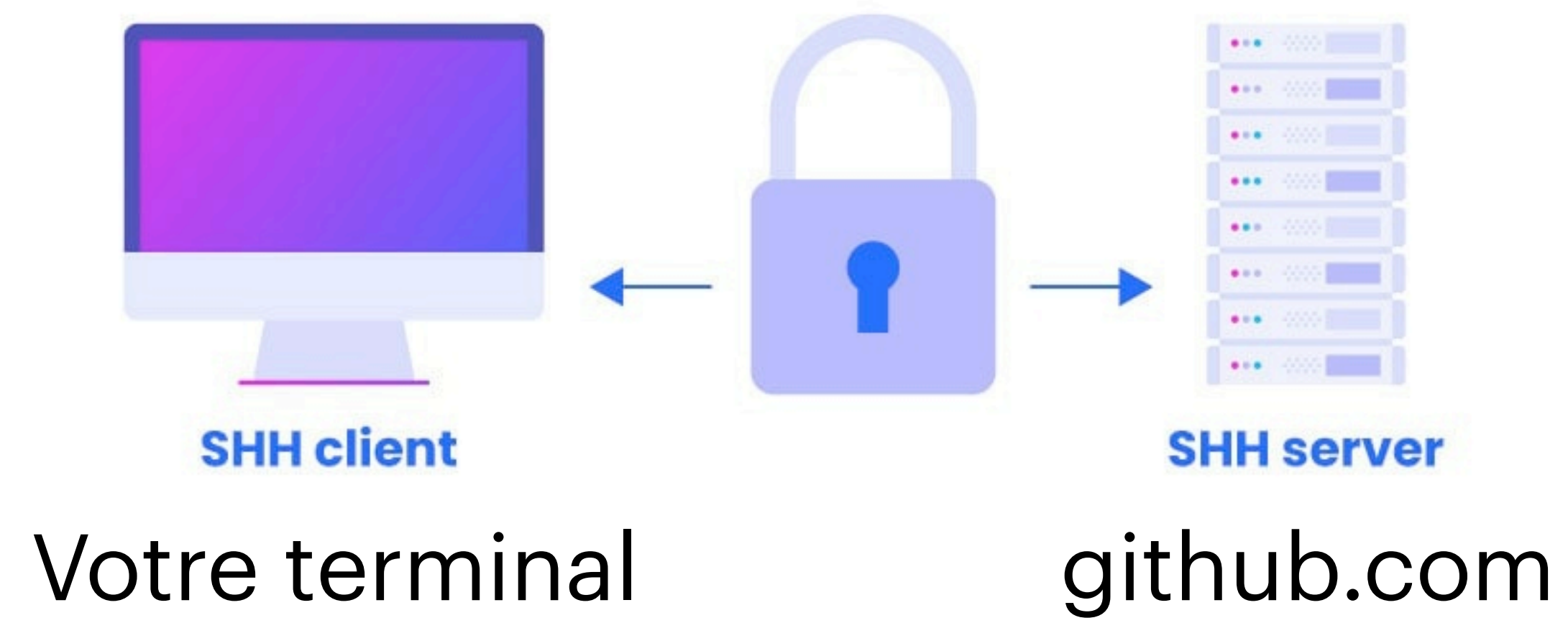


Votre terminal

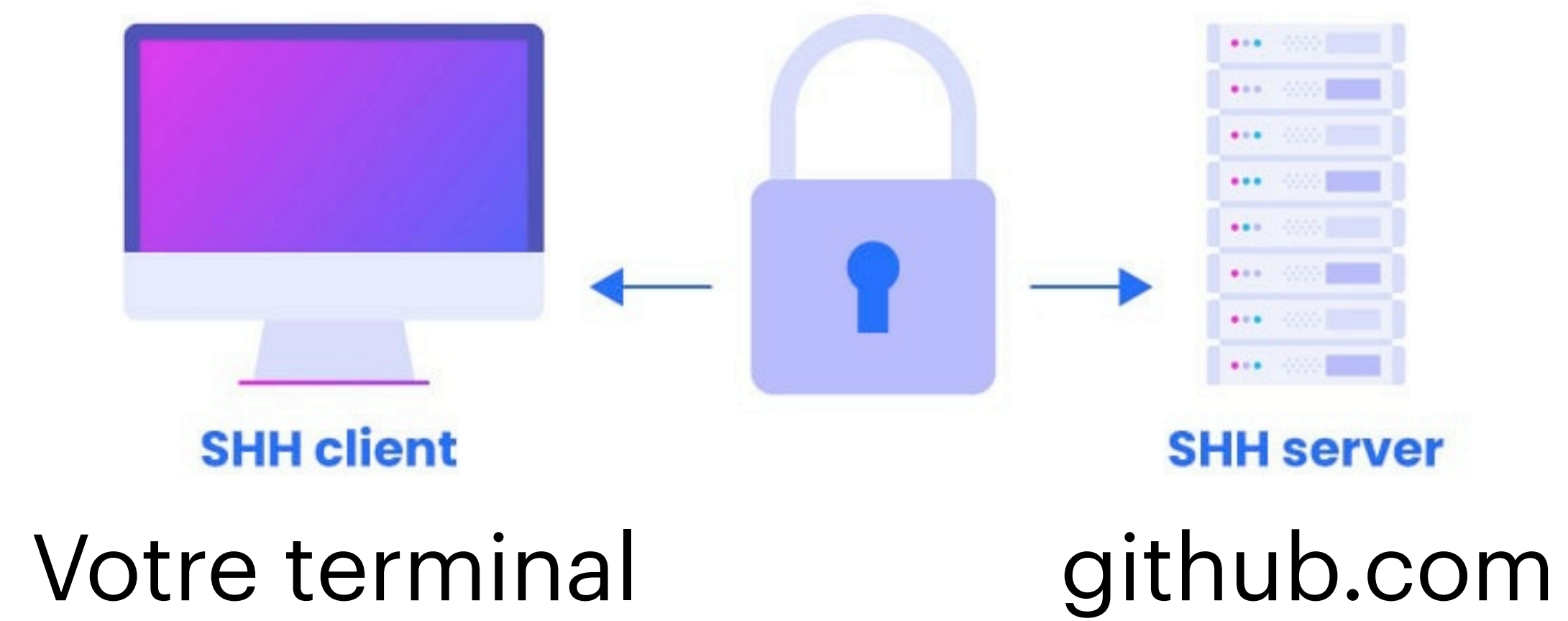
Votre server web

```
ssh ubuntu@234.174.159.240
```

ssh



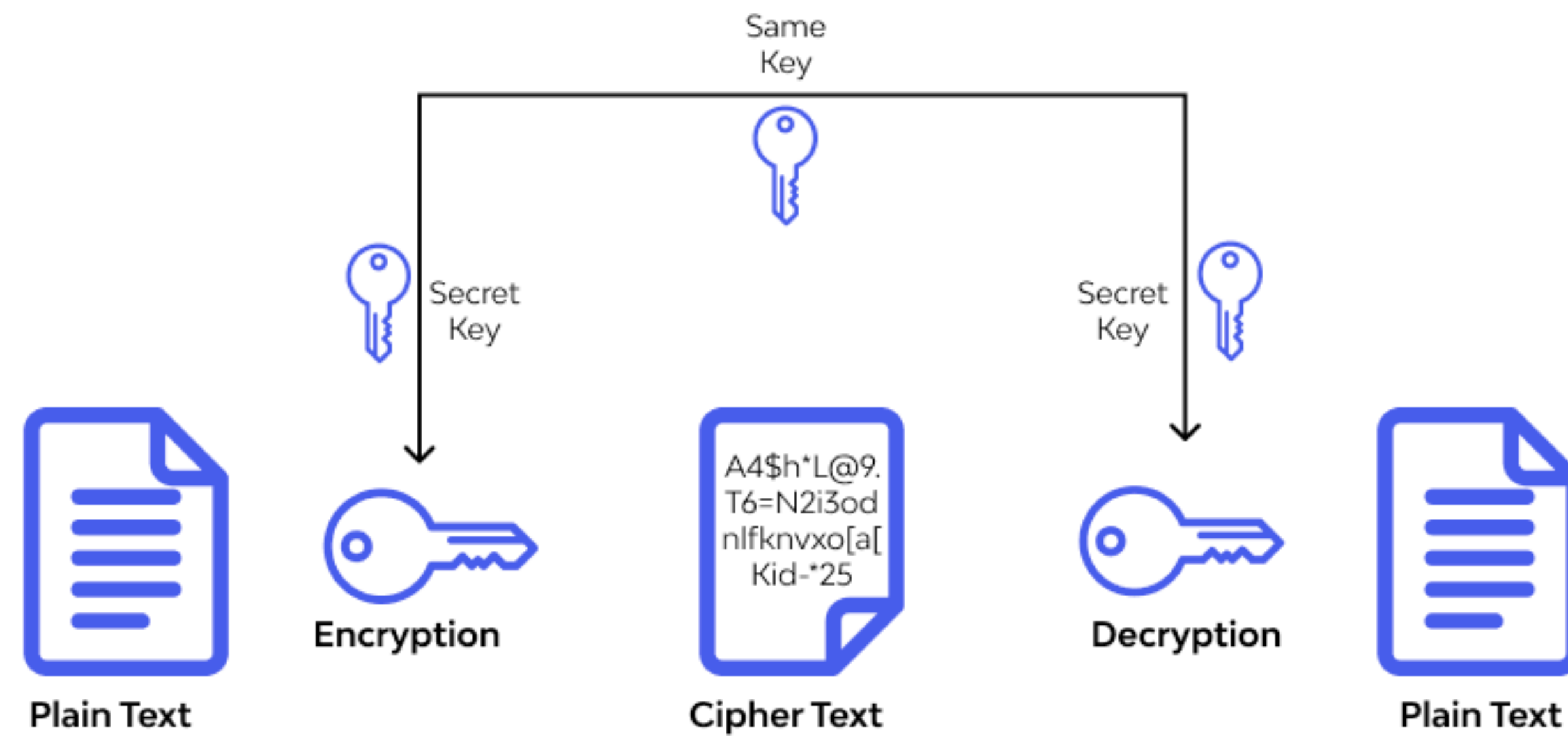
ssh



`git@github.com`

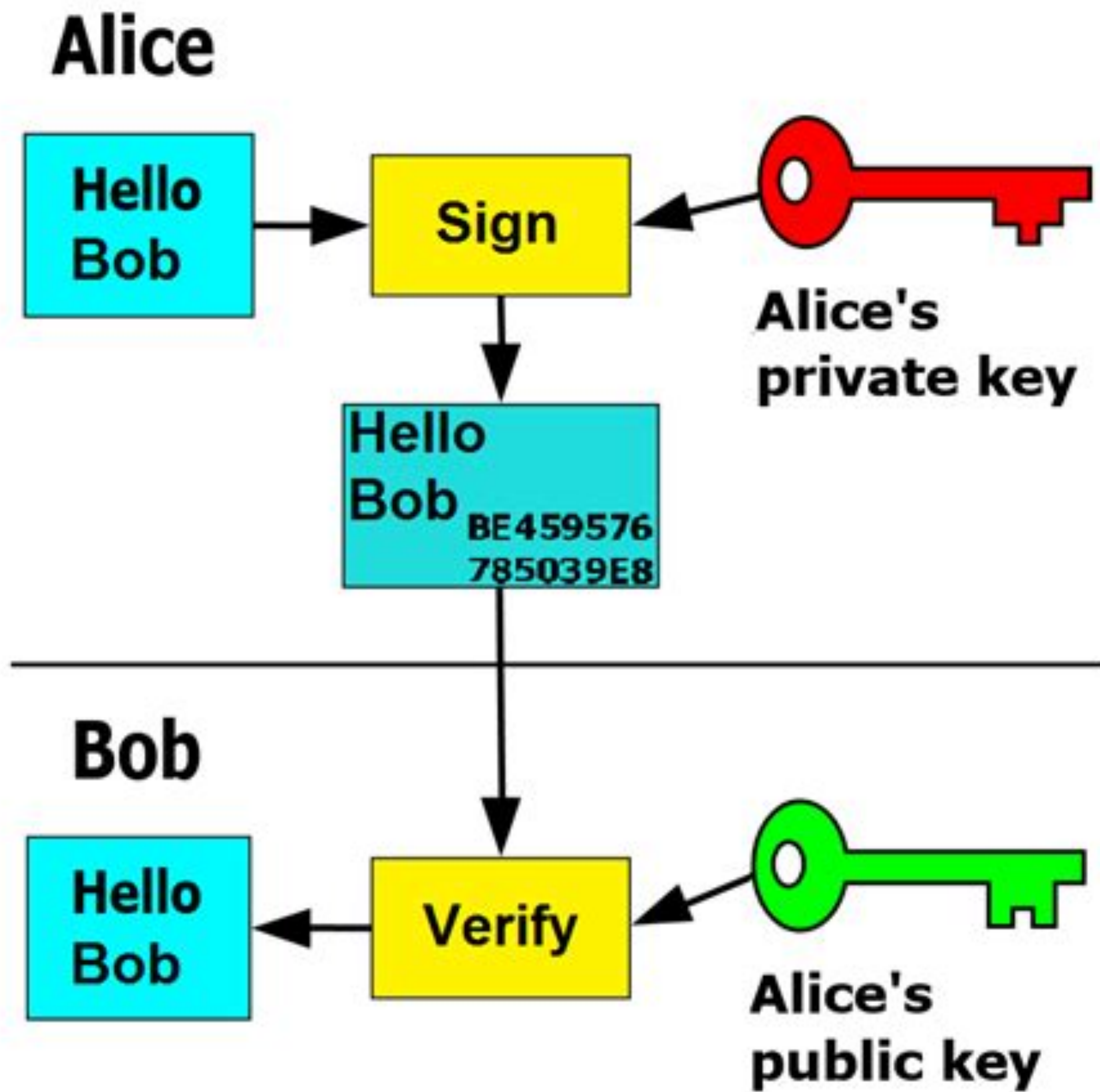
ssh

Chiffrement symétrique



ssh

Chiffrement asymétrique



ssh

Clé Privée



```
-----BEGIN OPENSSH PRIVATE KEY-----  
b3BlbnNzaC1rZXktdjEAAAABG5vbmUAAAABbm9uZQAAAAAAAAABAAAAMwAAAAAtzc2gtZW  
QyNTUxOQAAACAV4wp+0ldp0+rXco6fp0DQmmDoyo0RGEP130po8f07GQAAAIg6EL5R0hC+  
UQAAAAtzc2gtZWQyNTUxOQAAACAV4wp+0ldp0+rXco6fp0DQmmDoyo0RGEP130po8f07GQ  
AAAEbX1Rn1vn+pqU0MyBbvDf/3Xkg9eUK2eDB/LqsKdPcFdxXjCn46V2k76tdyjp+nQNCa  
Y0jKg5EYQ/XfSmjx/TsZAAAAAAECAwQF  
-----END OPENSSH PRIVATE KEY-----
```

ssh

Clé Publique



```
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIBXjCn46V2k76tdyjp+nQNCaY0jKg5EYQ/XfSmjx/TsZ
```

Ajout des clés SSH sur GitHub

ssh GH

Dashboard

glsubri

Top Repositories

Find a repository...

traak-sps/spa-compose

traak-sps/infra

traak-sps/main

traak-sps/android

traak-sps/ios

barenetworks/barenetworks-backend

barenetworks/barenetworks-web-frontend

Show more

Recent activity

traak-sps/main

Fix excel export

Your teams

Find a team...

2023-PRG1-GMB/staff

heigvd-software-engineering/barenetworks

heig-AMT/students

heig-PDG/android

heig-PRO-b04/mobile-frontend

heig-PRO-b04/backend

SoftEng-HEIGVD/y-parc-team

Home

alexandrepriveteau

starred 2 repositories

2 hours ago

frankmcsherry/differential-dataflow

An implementation of differential dataflow using timely dataflow on Rust.

Rust

147

frankmcsherry/columnar

High-throughput columnar serialization in Rust

Rust

126

alexandrepriveteau

followed

2 hours ago

Frank McSherry

frankmcsherry

32 repositories

1.6k followers

Follow

Trending repositories

See more

novuhq/novu

The open-source notification infrastructure with fully functional embedded notification center

TypeScript

26.4k

microsoft/autogen

Enable Next-Gen Large Language Model Applications. Join our Discord: https://discord.gg/pAbnFJrkgZ

Jupyter Notebook

4.7k

Recommended for you

sindresorhus/Plash

Make any website your Mac desktop wallpaper

glsubri

Guy-Laurent Subri

Set status

Your profile

Your repositories

Your projects

Your codespaces

Your organizations

Your enterprises

Your stars

Your sponsors

Your gists

Upgrade

Try Enterprise

Copilot

Feature preview

Settings

GitHub Docs

GitHub Support


Sign out

ssh GH

Settings

github.com/settings/profile

Type to search



Guy-Laurent Subri (glsabri)
Your personal account [Switch to another account](#)

Public profile

Account

Appearance

Accessibility

Notifications

Access

Billing and plans

Emails

Password and authentication

Sessions

SSH and GPG keys

Organizations

Enterprises

Moderation

Code, planning, and automation

Repositories

Codespaces

Packages

Copilot

Pages

Saved replies

Security

Code security and analysis

Integrations

Applications

Public profile

Name

Guy-Laurent Subri

Your name may appear around GitHub where you contribute or are mentioned. You can remove it at any time.

Public email

Select a verified email to display

You have set your email address to private. To toggle email privacy, go to [email settings](#) and uncheck "Keep my email address private."

Bio

Tell us a little bit about yourself

You can @mention other users and organizations to link to them.

Pronouns

Don't specify

URL

Social accounts

Link to social profile

Link to social profile


Link to social profile

Link to social profile

Company

You can @mention your company's GitHub organization to link it.

Profile picture



Edit

Go to your personal profile

ssh GH

github.com/settings/keys

Settings

Q Type to search

Guy-Laurent Subri (glsubri)

Your personal account [Switch to another account](#)

Public profile

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Appearance

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Go to your personal profile

SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

Authentication Keys

SSH

HEIG Mac key

SHA256:1lSo1y0E2JNERsbvwni640D+F70EIEKo6lVV0CX/s5Q

Added on Dec 8, 2021

Last used within the last week — Read/write

Delete

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH problems](#).

GPG keys

New GPG key

This is a list of GPG keys associated with your account. Remove any keys that you do not recognize.

GPG

Main key

Email address: guy-laurent@subri.ch

Key ID: D2C2E916B09F7330

Subkeys: DF7C2356D32FAEC1

Added on Nov 29, 2022

Delete

Learn how to [generate a GPG key and add it to your account](#).

Vigilant mode

☒ Flag unsigned commits as unverified

This will include any commit attributed to your account but not signed with your GPG or S/MIME key.

Note that this will include your existing unsigned commits.

[Learn about vigilant mode.](#)

ssh GH

Generating a new SSH key and adding it to the ssh-agent

<https://docs.github.com/en/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent>

1. Create SSH key

```
ssh-keygen -t ed25519 -C "your_email@example.com"
```

Utilisez les valeurs par défaut. Ne mettez pas de *passphrase*

2. Add SSH key to SSH env

Éditez le fichier: `~/.ssh/config`

```
Host github.com
```

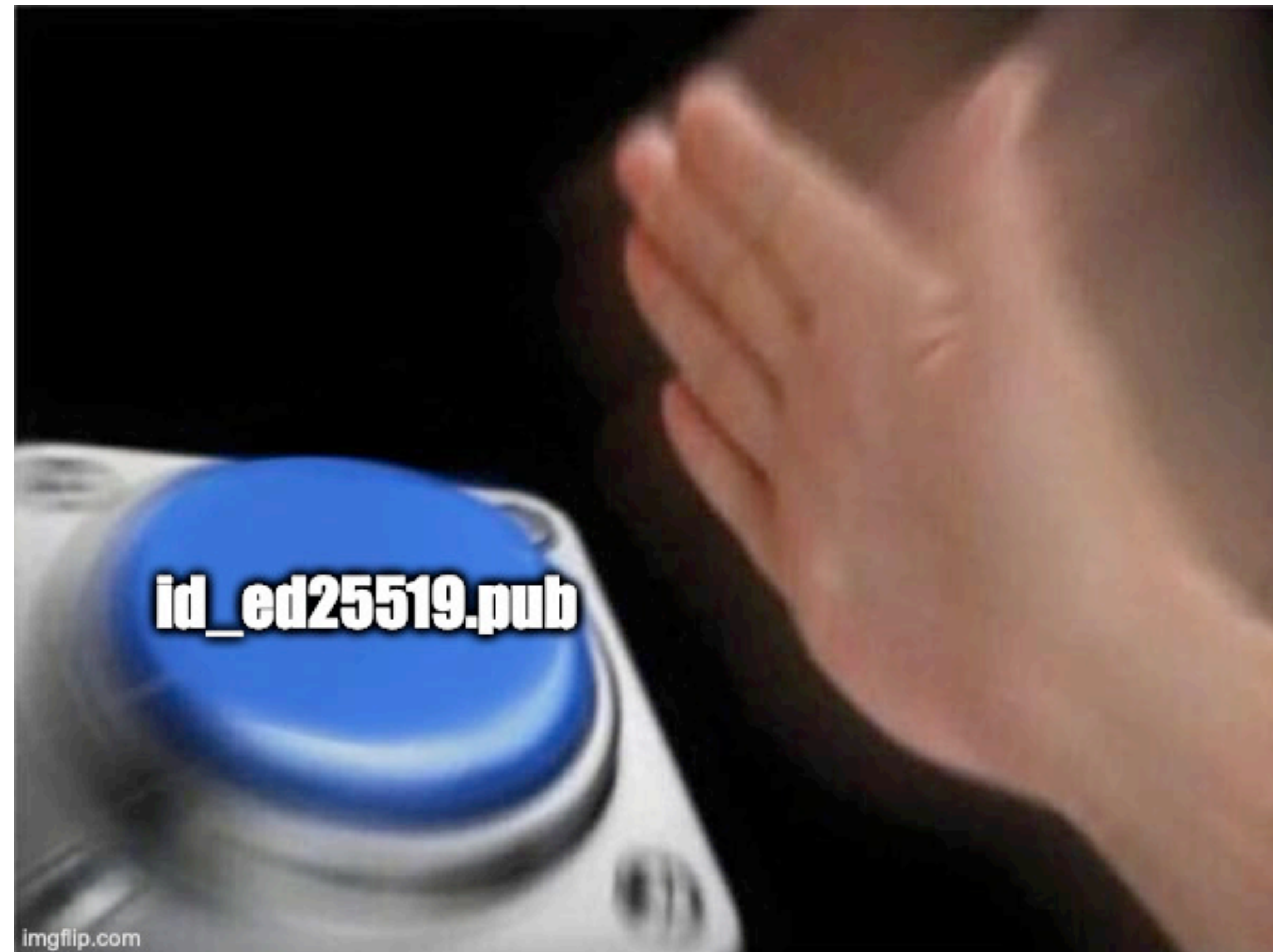
```
    AddKeysToAgent yes
```

```
    IdentityFile ~/.ssh/id_ed25519
```


3. Add SSH key to GitHub



3. Add SSH key to GitHub



3. Add SSH key to GitHub

```
clip < ~/.ssh/id_ed25519.pub
```

```
pbcopy < ~/.ssh/id_ed25519.pub
```

Copie la clé publique dans votre presse-papier

[Go to your personal profile](#)

- ## 00 Applications

New SSH key

Authentication Keys

Delete

New GPG key

Delete









[Learn about vigilant mode.](#)

 **Guy-Laurent Subri (glsabri)**
Your personal account [Switch to another account](#)







[Go to your personal profile](#)

- Public profile
- Account
- Appearance
- Accessibility
- Notifications

Access

-  Billing and plans
-  Emails
-  Password and authentication
-  Sessions
-  **SSH and GPG keys**
-  Organizations
-  Enterprises
-  Moderation

Code, planning, and automation

-  Repositories
-  Codespaces
-  Packages
-  Copilot
-  Pages
-  Saved replies

Security

- ### Code security and analysis

Integrations

- ## 00 Applications

Add new SSH Key

Title

Key type

Authentication Key 

Key

Begins with 'ssh-rsa', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', 'ecdsa-sha2-nistp521', 'ssh-ed25519', 'sk-ecdsa-sha2-nistp256@openssh.com', or 'sk-ssh-ed25519@openssh.com'

Add SSH key

4. Test SSH key

```
ssh -T git@github.com
```


Acceptez le fingerprint GitHub:

SHA256:+DiY3wvvV6TuJJhbpZisF/zLDA0zPMSvHdkr4UvCOqU

Comment rendre ses labos ?

Laboratoires

Procédure

1. Créer un repository **privé** sur GH
2. Ajouter le lien du repository dans le fichier Teams
3. Ajoutez vos collègues dans le repository
4. Ajoutez les assistants et le prof **avec les droits d'accès en écriture**
glsubri, pagedidier, gmbreguet
5. Faites le labo
6. Le dernier commit sera utilisé pour noter le labo.
 *Pénalité si dépassement des deadlines*

Laboratoires

Procédure



Laboratoires

Rendu

1. Correction du labo sur le dernier commit valide
2. Ajouts de commentaires dans le code
3. PR depuis une branche de correction
4. Note dans GAPS

Laboratoires

PR

Une Pull Request (PR) sur GitHub, c'est comme demander à un ami geek de revoir ta dissertation. Tu lui montres tes modifications, expliques pourquoi c'est génial (ou pas), et il peut donner son avis ou te dire d'y retourner. Une fois que tout le monde est heureux, le boss appuie sur le bouton "Fusionner" et voilà, ta contribution est dans le grand livre du code. C'est comme une soirée pyjama, mais pour les développeurs ! 😊

ChatGPT, 2023

Laboratoires

“Exemple” de correction

<https://github.com/2023-PRG1-GMB/exemple-labo/pull/1/files>