

Take back control of your Bash by becoming a CLI ninja! 😎

David Aparicio | 30 September 2022 | 11h00 | Lyon (WebEx)



Why use the CLI ?

Search metallica

Help Type ?

Library

- Made For You
- Recently Played
- Liked Songs
- Albums
- Artists
- Podcasts

Playlists

- Jewish
- Classical
- Baroque
- Foul
- Sacred
- Bluegrass Covers
- Synthwave / Retro Electro (Essence of the Renaissance)
- san andreas bom demais
- Liked from Radio
- Guided Meditation
- Bass House 2019 Moksi TAKEO
- Lord Of The Rings - Full OS
- Discover Weekly

Songs

- Enter Sandman - Metallica
- Nothing Else Matters - Metallica
- Master Of Puppets - Metallica
- One - Metallica
- For Whom The Bell Tolls - Remastered - Metallica
- Whiskey In The Jar - Metallica
- The Unforgiven - Metallica
- Sad But True - Metallica
- Fade To Black - Remastered - Metallica
- Seek & Destroy - Remastered - Metallica
- Fuel - Metallica
- Wherever I May Roam - Metallica
- Battery - Metallica
- Hardwired - Metallica

Artists

- Metallica
- Spartan Metallican Visionary
- Metallicash
- Metallica: Burton
- Metallica Tribute Band
- Made famous by Metallica

Albums

- Metallica - Metallica
- Master Of Puppets (Remastered) - Metallica**
- Garage Inc. - Metallica
- Metallica Through The Never (Music From The Motion Picture)
- ... And Justice For All - Metallica
- Ride The Lightning (Remastered) - Metallica
- Ride The Lightning (Deluxe / Remastered) - Metallica
- Reload - Metallica
- Kill 'Em All (Remastered) - Metallica
- Hardwired...To Self-Destruct - Metallica
- Death Magnetic - Metallica
- Load - Metallica
- S&M - Metallica
- Hardwired...To Self-Destruct (Deluxe) - Metallica

Playlists

- Metallica Greatest Hits
- Metallica: Essentials
- This Is Metallica
- Metallica: Complete
- METALLICA live
- Metallica: Studio Albums
- Metallica- Live Seattle '89
- Metallica: Best Of The Best
- Metallica - Whisky in the jar
- metallica ballads
- Metallica S&M2 Setlist 2019
- Metallica Radio Playlist
- Metallica Covers (The Good Ones)
- Metallica Chile 15 Abril 2020 - Estadio Nacional

Playing (Alexander's MacBook Pro | Shuffle: Off | Repeat: Off | Volume: 100%)

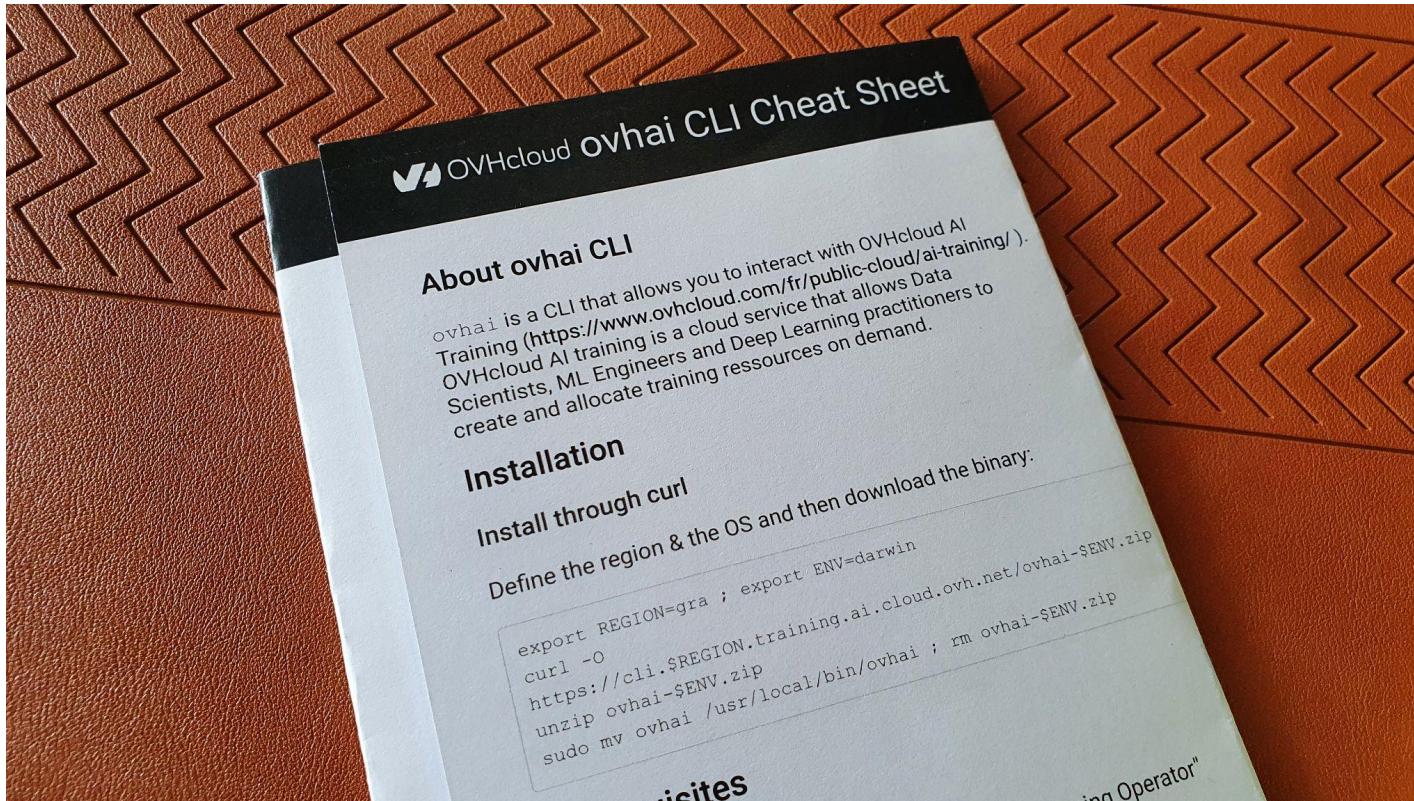
Find You

Signal Void, King Protea

0:56/4:204 (-3:07)



CLI, simple & fast



[ovhai CLI Cheat Sheet](#)



Disclaimer



- - Bash
- + Configuration
- + Commands
- Available directly in your IDE
- Find a tool for your computer



Website to help you choose

→ C libhunt.com/compare-zoxide-vs-autojump

zoxide

A smarter cd command. Supports all major shells. (by ajeetdsouza)

#Z #Command-line #Rust #Zsh #Autojump #Bash #Powershell #Shell #Fish
#Xonsh #Xontrib #Fzf #Fasd #Jump #Command Line Tool #CLI #nushell #elvish
#fish-shell #HacktoberFest

[Source Code](#)

SonarLint - Deliver Cleaner and Safer Code - Right in Your IDE of Choice!

Scout APM - Less time debugging, more time building

SaaSHub - Software Alternatives and Reviews

Our great sponsors

autojump

A cd command that learns - easily navigate directories from the command line (by wtting)

#Autojump #Python #Filesystem #Command Line Tool

[Source Code](#)

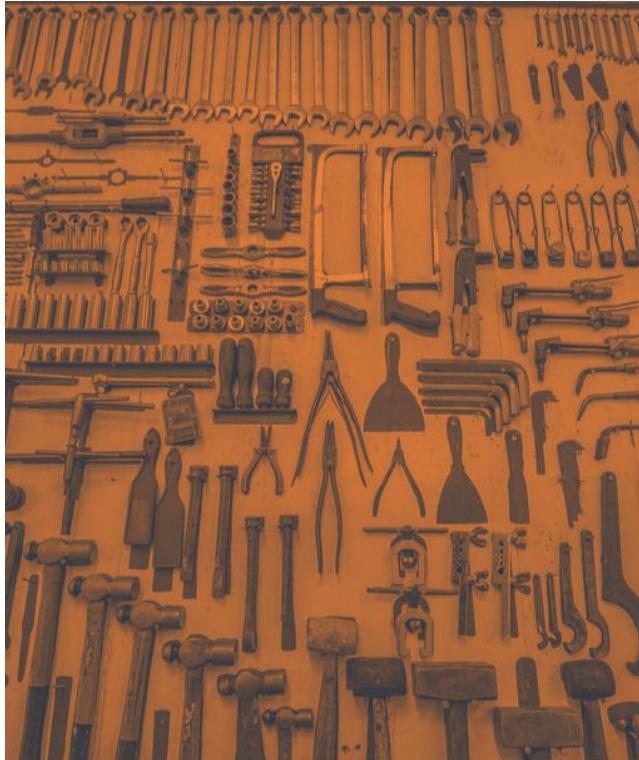
zoxide	autojump	
Project		
54	@ Mentions	27
5,847	☆ Stars	13,629
-	↗ Growth	-
8.5	⚡ Activity	0.0
4 days ago	Latest Commit	8 days ago
Rust	↳ Language	Python
MIT License	License	GNU General Public License v3.0 or later

Roadmap

- Intro: Terminal & Shell
- Development
- Network & Perfs
- Tips
- Conclusion



Tool of choice



- Command interpreter (cmd)
- System interface (shell)
- Software infrastructure (framework)
- Extensions / Themes (plugins)
- Windows / tabs manager



Command interpreter



- Terminal / Konsole
- Terminator
- iTerm2
- Alacritty / Warp
- Cmd / Cmder
- Windows Terminal



System interface

```
Toms PowerShell www.thomasmauer.ch
Try the new cross-platform PowerShell https://aka.ms/pscore6

Version: 10.0.18334.1
Loading personal and system profiles took 538ms.
PS C:\> iex "& { $(irm https://aka.ms/install-powershell.ps1

Directory: C:\Users\thmaure\AppData\Local\Temp

Mode LastWriteTime Length Name
---- ----- - - -
d---- 2/20/2019 5:36 PM cmv0gpok.qo
VERBOSE: About to download package from
'https://github.com/PowerShell/PowerShell/releases/download/10.0.18334.1/cm
v0gpok.qo'

Directory: C:\Users\thmaure\AppData\Local\Temp\cmv0gpok.

Mode LastWriteTime Length Name
---- ----- - - -
d---- 2/20/2019 5:37 PM new

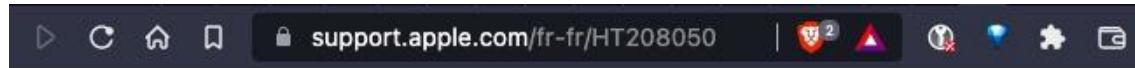
PS C:\>
```

- Bash
 - Zsh
 - Fish
 - Ksh
 - Tcsh
 - MS-DOS / Powershell
 - MinGW / WSL2

<https://hyperpolyglot.org/unix-shells>



By default, it depends



Utiliser zsh comme shell par défaut sur votre Mac

À partir de macOS Catalina, le Mac utilise zsh comme shell d'accès par défaut et shell interactif. Vous pouvez également définir zsh comme valeur par défaut dans les versions antérieures de macOS.

Par défaut, votre Mac utilise zsh ou bash comme interpréteur de ligne de commande pour le shell d'accès et le shell interactif :

- **zsh** (Z shell) est le shell par défaut pour tous les comptes d'utilisateur nouvellement créés, à partir de macOS Catalina.
- **bash** est le shell par défaut sous [macOS Mojave et versions antérieures](#).

zsh est hautement compatible avec le shell Bourne (sh) et globalement compatible avec bash, avec quelques différences. Pour plus d'informations sur zsh et son système exhaustif de compléition de ligne de commande, saisissez `man zsh` dans Terminal.



Software infrastructure, Plugins

Agnoster ZSH Theme
Glyphs required:



Sample code set in PragmataPro™

```
~> cd testproject
~/testproject > master > gco detached-head-sta
~/testproject - fdffaf6 > touch dirty-working-
~/testproject - fdffaf6±> cd
~> ssh milly
Welcome to Ubuntu 11.04 (GNU/Linux 2.6.18-308.8.3
~> sudo -s
Password:
$ root@Arya ~> top &
[1] + 34523 suspended (tty output) top
* $ root@Arya ~> kill %1
[1] + 34523 terminated top
```

- Oh My Zsh / Oh-My-Fish (OMF)
- Spaceship 🇺🇦 / Spacefish †
- Starship (Cross/Rust)

```
rocket on ↵ master via 🦀 v1.36.0
> sudo -S

root in rocket on ↵ master via 🦀 v1.36.0
> exit

rocket on ↵ master via 🦀 v1.36.0 took 4s
> vim ~/.config/starship.toml █
```



Bonus: everything on the keyboard

```

tmux

1 [|||          4.3%]   Tasks: 123, 362 thr; 2 running
2 [|||          3.3%]   Load average: 0.40 0.40 0.30
3 [|||          4.7%]   Uptime: 3 days, 04:44:37
4 [|||          1.4%]
Mem[||||| 1907/7847MB] 0/0MB]

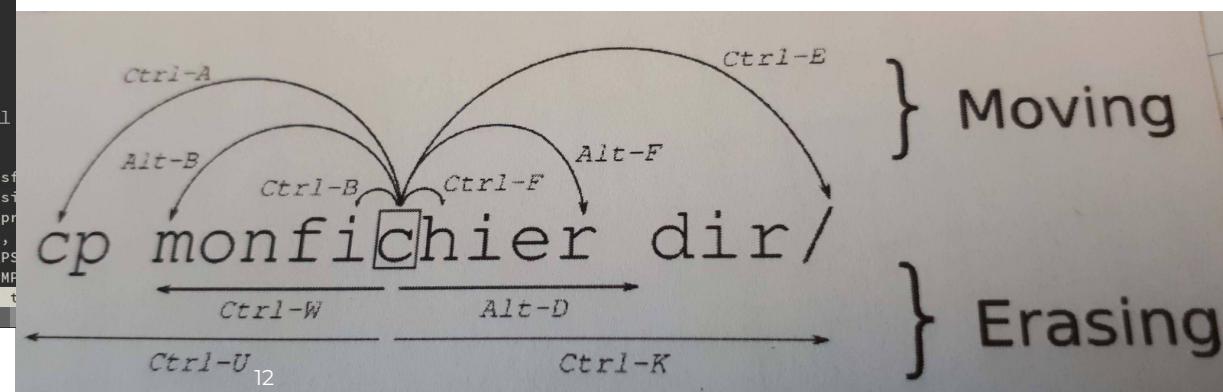
PID USER PRI NI VIRT RES SHR S CPU% MEM% TIME+ Command
20136 ham 20 0 298M 31396 21400 S 4.3 0.4 0:00.36 /usr/bin/
964 ham 20 0 1757M 227M 67600 S 3.8 2.9 7:03.93 /usr/bin/
895 ham 20 0 326M 63060 37040 S 3.8 0.8 8:07.97 /usr/lib/
19149 ham 20 0 15808 3464 2620 R 0.5 0.0 0:04.49 htop
13720 ham 20 0 471M 41444 24216 S 0.5 0.5 1:17.20 /usr/lib/
599 gdm 20 0 1322M 131M 56328 S 0.5 1.7 2:10.14 gnome-sh
F1Help F2Setup F3Search F4Filter F5Tree F6SortBy F7Nice F8Nice F9Kill

Content-Type: text/html; charset=UTF-8 curl(1)      Curl Manual
Content-Length: 1850
Via: 1.1 vegur

hamvocke git/master
> cowsay "Hello folks" | lolcat
< Hello folks >
-----
\ ^__^
 \  (oo)\----)
  (__)\-----)\/\
   ||----w |
    ||     ||

hamvocke git/master
>
1:debug* 2:dev-

```

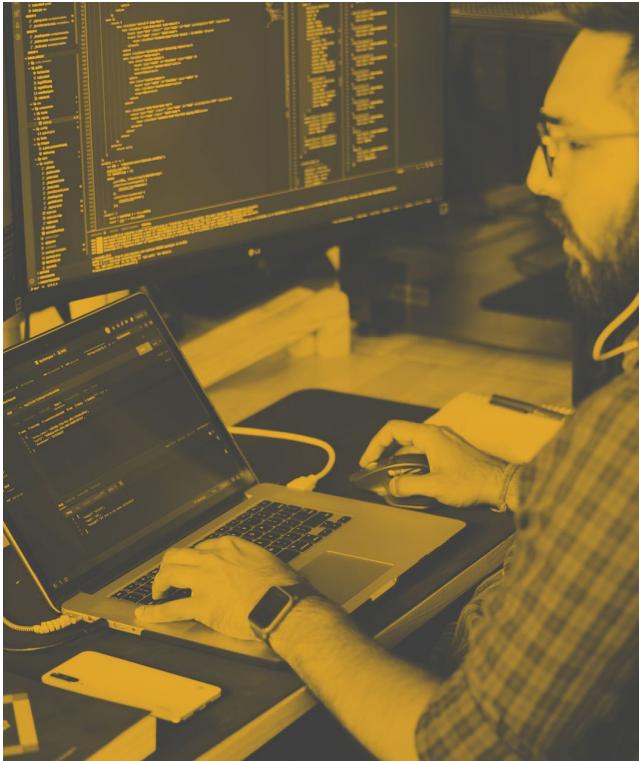




Let's Code



Workspace



- Folder selection, with the classics cd / ls
- Exa, lsd, colorls (ls)
- Zoxide, autojump (cd)

```
~  
↳ z 2022  
↳ 2022etmoi on 🏙 prod is 📦 v0.0.1 via ● v17.8.0  
↳ pwd  
/Users/daparicio/code/github.com/2022etmoi/2022etmoi  
~  
↳ z website  
↳ website on 🏙 master [!?] via 🐫 v1.18 on 💧 v20.10.13  
↳ pwd  
/Users/daparicio/code/gitlab.com/davidaparicio/website
```



Vim or Emacs ?

A screenshot of the Lapce IDE interface. On the left is a file tree showing a project structure with files like .git, .github, .vscode, core, src, Cargo.toml, defaults, docs, extra, icons, proxy, rpc, target, .gitignore, .rustfmt.toml, Cargo.lock, Cargo.toml, LICENSE, Makefile, and README.md. The current file is editor.rs, which contains Rust code. The code completion dropdown is open at line 278, showing suggestions for 'self'. The background has a dark theme with light-colored code and syntax highlighting.

- Rust offers a promising list
- Lapce
- Ox
- Xi
- Kiro
- Bat (cat)
- Delta / Difftastic (diff)



Example: bat / cat

```
→ bat internal.go
```

```
File: internal.go
```

```
1 package internal
2
3 import "unicode/utf8"
4
5 func IsLongEnough(username string, minLen int) bool {
6     return utf8.RuneCountInString(username) ≥ minLen
7 }
```



Example: git diff

```
Binary files a/scripts/qrcode/qrcode.png and b/scripts/qrcode/qrcode.png differ
diff --git a/scripts/qrcode/qrcode_gen.py b/scripts/qrcode/qrcode_gen.py
index 81966bc..ea2b55a 100644
--- a/scripts/qrcode/qrcode_gen.py
+++ b/scripts/qrcode/qrcode_gen.py
@@ -1,7 +1,7 @@
 import qrcode

-websiteurl = 'https://davidaparicio.gitlab.io/website/'
-filename = 'website.png'
+websiteurl = 'https://s.42l.fr/devoxxcastor'
+filename = 'qrcode.png'

versions      = 1  #1 to 40
boxsize       = 10 #nb of pixels
~/c/g/d/website >>> git config --global diff.external difft
~/c/g/d/website >>> git diff
scripts/qrcode/qrcode.png --- binary
Binary contents changed.
scripts/qrcode/qrcode_gen.py --- Python
1 import qrcode
2
3 websiteurl = 'https://davidaparicio.gitlab.io/website/'
4 filename = 'website.png'
5
6 versions      = 1  #1 to 40
7 boxsize       = 10 #nb of pixels
```

```
1 import qrcode
2
3 websiteurl = 'https://s.42l.fr/devoxxcastor'
4 filename = 'qrcode.png'
5
6 versions      = 1  #1 to 40
7 boxsize       = 10 #nb of pixels
```



To-do list: Task Warrior

```
website on ↵ master via 🐧 v1.18.2 took 4s
→ task add Prepare the first draft of the proposal due:today priority:H
Created task 3.

website on ↵ master via 🐧 v1.18.2
→ task add Prepare the slides due:tomorrow priority:L
Created task 4.

website on ↵ master via 🐧 v1.18.2
→ task list

ID Age P Due Description Urg_
1 1min L 2022-05-26 Prepare the slides 10.4
2 4s 2022-06-01 Update website 5.84

2 tasks

website on ↵ master via 🐧 v1.18.2
→ task done 1
Completed task 1 'Prepare the first draft of the proposal'.
Completed 1 task.

website on ↵ master via 🐧 v1.18.2
→ task add Update website due:2022-06-01
Created task 3.

website on ↵ master via 🐧 v1.18.2
→ task list

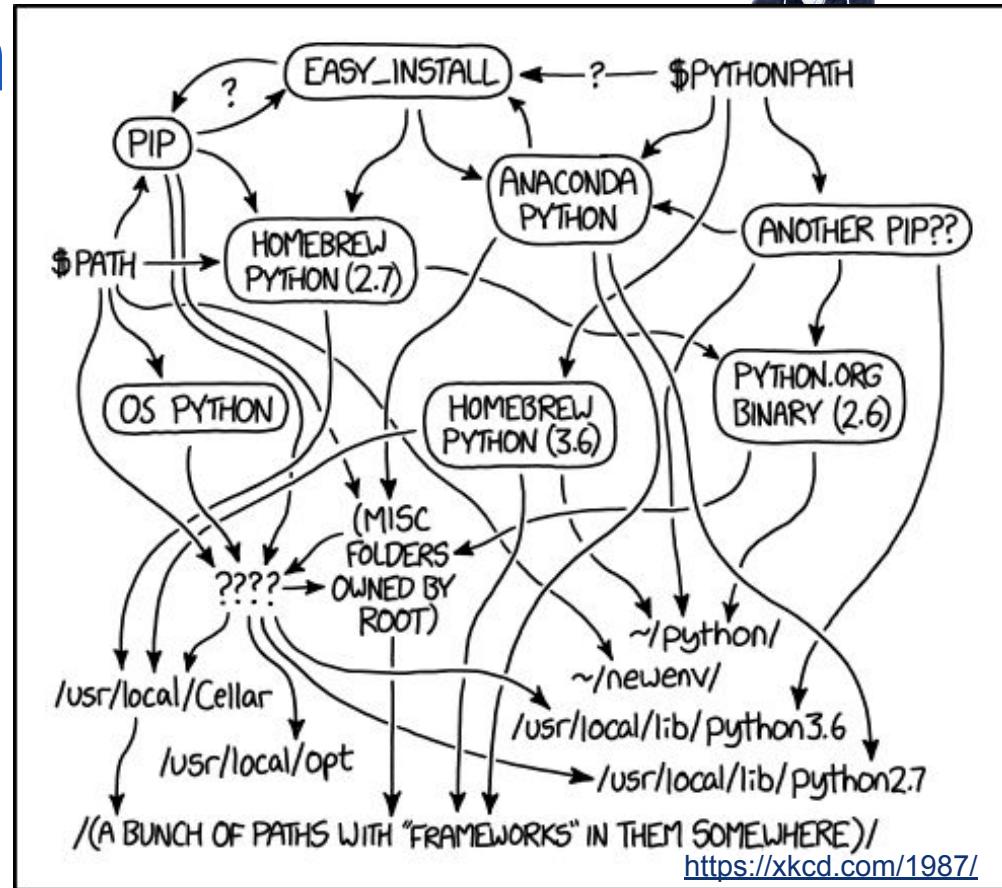
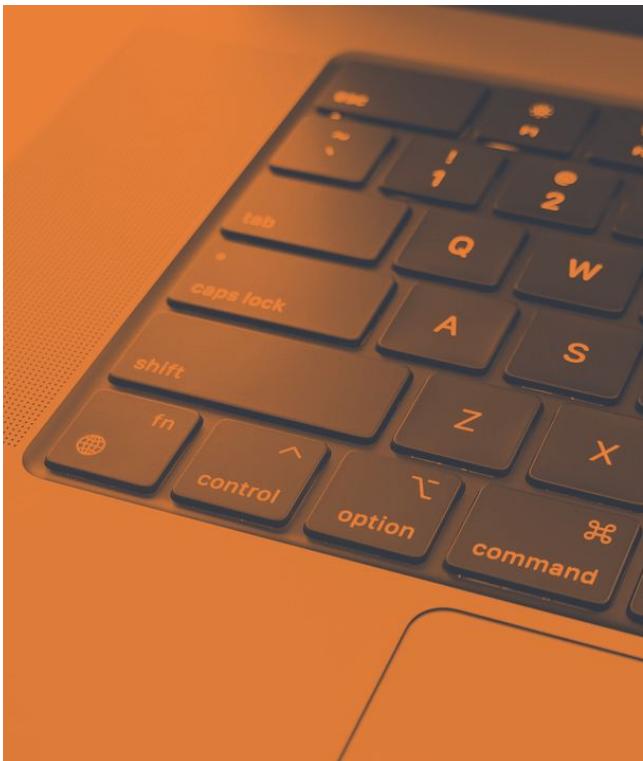
ID Age P Due Description Urg_
1 1min L 2022-05-26 Prepare the slides 10.4
2 4s 2022-06-01 Update website 5.84

2 tasks

website on ↵ master via 🐧 v1.18.2
→ task delete 1,2
This command will alter 2 tasks.
Delete task 1 'Prepare the slides'? (yes/no/all/
Deleting task 1 'Prepare the slides'.
Deleting task 2 'Update website'.
Deleted 2 tasks.
```



Version man



MY PYTHON ENVIRONMENT HAS BECOME SO DEGRADED
THAT MY LAPTOP HAS BEEN DECLARED A SUPERFUND SITE.



tldr / tealdeer

```
danilo@x2000:~$ tldr strace
```

Troubleshooting tool for tracing system calls.

Start tracing a specific process by its PID:

```
strace -p pid
```

Trace a process and filter output by system call:

```
strace -p pid -e system call name
```

Count time, calls, and errors for each system call and report a summary on program exit:

```
strace -p pid -c
```

Show the time spent in every system call:

```
strace -p pid -T
```

Start tracing a program by executing it:

```
strace program
```

Start tracing file operations of a program:

```
strace -e trace=file program
```

```
danilo@x2000:~$ []
```



navi

■



Let's Debug



An issue ? A solution dstp

```
main 1 zsh 2 zsh 3 zsh 4 zsh 5 zsh 6 zsh main:6:zsh - "Yagzs-MacBook-Pro.local"
Thu 2021-11-11 18:50 | Yagzs-MacBook-Pro

→ ~ dstp https://cloudflare.com/
Ping: 14.282ms
DNS: resolving 104.16.132.229
SystemDNS: resolving 104.16.132.229, 104.16.133.229, 2606:4700::6810:84e5, 2606:4700::6810:85e5
TLS: certificate is valid for 204 more days
HTTPS: got 200 OK

→ ~ dstp 8.8.8.8
Ping: 42.874334ms
DNS: resolving 8.8.8.8
SystemDNS: resolving 8.8.8.8
TLS: certificate is valid for 60 more days
HTTPS: got 200 OK

→ ~ dstp https://jvns.ca
Ping: 69.652ms
DNS: resolving 172.67.179.90
SystemDNS: resolving 172.67.179.90, 104.21.91.206, 2606:4700:3033::6815:5bce, 2606:4700:3031::ac43:b35a
TLS: certificate is valid for 225 more days
HTTPS: got 200 OK

→ ~ |
```



Specific tests on API: httpie

```
~ >>> http PUT httpbin.org/put hello=world
HTTP/1.1 200 OK
Access-Control-Allow-Credentials: true
Access-Control-Allow-Origin: *
Connection: keep-alive
Content-Length: 495
Content-Type: application/json
Date: Sat, 16 Apr 2022 14:54:38 GMT
Server: gunicorn/19.9.0

{
    "args": {},
    "data": "{\"hello\": \"world\"}",
    "files": {},
    "form": {},
    "headers": {
        "Accept": "application/json, */*;q=0.5",
        "Accept-Encoding": "gzip, deflate",
        "Content-Length": "18",
        "Content-Type": "application/json",
        "Host": "httpbin.org",
        "User-Agent": "HTTPie/3.1.0",
        "X-Amzn-Trace-Id": "Root=1-625ad8ae-5540
    },
    "json": {
        "hello": "world"
    },
}
```

```
~ >>> https httpbin.org/status/418
HTTP/1.1 418 I'M A TEAPOT
Access-Control-Allow-Credentials: true
Access-Control-Allow-Origin: *
Connection: keep-alive
Content-Length: 135
Date: Sat, 16 Apr 2022 14:53:41 GMT
Server: gunicorn/19.9.0
x-more-info: http://tools.ietf.org/html/rfc2324

-[ teapot ]-
```





Specific tests on GRPC: gRPCcurl

Windows PowerShell

```
C:\> grpcurl -d '{ \"name\": \"World\" }' localhost:5001 greet.Greeter/SayHello
{
  "message": "Hello World"
}
C:\> -
```

```
all-things-microservices on ✪ master [?] via 🐻 v1.13.8 on 🎵 v19.03.9 ()
→ grpcurl --plaintext -d '{
  "Base": "EUR",
  "Destination": "EUR"
}' localhost:9092 Currency/GetRate
{
  "rate": 23.12
}
```



Perfs: ab / hey

```
>>> hey -n 100 -c 50 -a user:pass 'https://google.com' | pr -2 -t -o 5
```

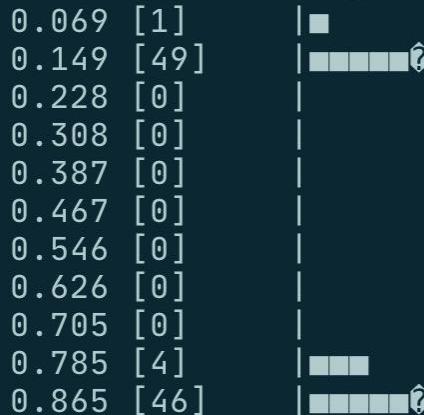
Summary:

Total:	0.9536 secs
Slowest:	0.8645 secs
Fastest:	0.0692 secs
Average:	0.4553 secs
Requests/sec:	104.8625

Latency distribution:

10%	in 0.0784 secs
25%	in 0.0824 secs
50%	in 0.7404 secs
75%	in 0.8332 secs
90%	in 0.8559 secs
95%	in 0.8590 secs
99%	in 0.8645 secs

Response time histogram:



Details (average, fastest, slowest)

DNS+dialup:	0.1860 secs, 0.069
DNS-lookup:	0.0005 secs, 0.000
req write:	0.0001 secs, 0.000
resp wait:	0.0539 secs, 0.044
resp read:	0.0063 secs, 0.000

Status code distribution:

[200] 100 responses



Perfs: hyperfine

```
▶ hyperfine --warmup 3 'fd -e jpg -uu' 'find -iname "*.jpg"' █
```



Logs: lnav / multitail / GoAccess

```
Thu Mar 20 23:01:23 PDT          /private/tmp/demo/access_log: access_log: LOG
192.0.2.33 - - [19/Mar/2014:14:37:17 +0000] "GET /features.html HTTP/1.1" 500 263049 "-" "Apache-HttpClient/4.2.3
192.0.2.55 - - [19/Mar/2014:14:37:17 +0000] "PUT /features.html HTTP/1.1" 200 422671 "-" "-"
192.0.2.33 - - [19/Mar/2014:14:37:18 +0000] "GET /index.html HTTP/1.1" 200 318902 "-"-
Mar 19 14:37:18 frontend3 server[121]: Received packet from 192.0.2.55
Mar 19 14:37:19 frontend3 server[123]: Received packet from 192.0.2.55
Mar 19 14:37:19 frontend3 server[123]: Handling request 9efcf643-ac89-4125-a69d-ec3203047a19
192.0.2.33 - - [19/Mar/2014:14:37:19 +0000] "PUT /index.html HTTP/1.0" 200 871988 "-"-
192.0.2.55 - - [19/Mar/2014:14:37:20 +0000] "GET /index.html HTTP/1.0" 200 400613 "-"-
192.0.2.55 - - [19/Mar/2014:14:37:21 +0000] "GET /obj/1235?foo=bar HTTP/1.0" 200 841360 "-" "Apache-HttpClient/4.
Mar 19 14:37:21 frontend3 worker[61456]: Handling request 9efcf643-ac89-4125-a69d-ec3203047a19
Mar 19 14:37:22 frontend3 worker[61456]: Successfully started helper
192.0.2.33 - - [19/Mar/2014:14:37:22 +0000] "PUT /index.html HTTP/1.0" 200 944322 "-" "Apache-HttpClient/4.2.3 (j
Mar 19 14:37:23 frontend3 worker[61456]: Received packet from 192.0.2.55
Mar 19 14:37:23 frontend3 server[123]: Handling request 9efcf643-ac89-4125-a69d-ec3203047a19
Mar 19 14:37:24 frontend3 server[124]: Received packet from 192.0.2.55
Mar 19 14:37:24 frontend3 worker[61456]: Handling request 70430eff-159e-4818-a0e7-f21a7d4ad892
Mar 19 14:37:25 frontend3 server[121]: Handling request 9ed6455c-0edf-4623-b3bc-5f65ce81825f
192.0.2.55 - bob@example.com [19/Mar/2014:14:37:25 +0000] "GET /images/compass.jpg HTTP/1.0" 200 4509 "-"-
192.0.2.55 - - [19/Mar/2014:14:37:25 +0000] "GET /obj/1235?foo=bar HTTP/1.1" 200 420858 "-" "Apache-HttpClient/4.
192.0.2.33 - - [19/Mar/2014:14:37:26 +0000] "PUT /features.html HTTP/1.1" 500 741005 "-"-
Mar 19 14:37:27 frontend3 worker[61456]: Successfully started helper
Mar 19 14:37:27 frontend3 server[123]: Received packet from 192.0.2.55
Mar 19 14:37:27 frontend3 server[121]: Handling request 70430eff-159e-4818-a0e7-f21a7d4ad892
192.0.2.55 - - [19/Mar/2014:14:37:28 +0000] "GET /index.html HTTP/1.0" 200 299909 "-" "Apache-HttpClient/4.2.3 (j
192.0.2.55 - - [19/Mar/2014:14:37:28 +0000] "GET /index.html HTTP/1.0" 200 731434 "http://lnav.org/download.html"
Mar 19 14:37:29 frontend3 worker[61456]: Reading from device: /dev/hda
192.0.2.55 - bob@example.com [19/Mar/2014:14:37:30 +0000] "GET /obj/1234 HTTP/1.0" 200 763899 "-"-
192.0.2.55 - - [19/Mar/2014:14:37:30 +0000] "GET /obj/1236?search=demo&start=1 HTTP/1.0" 200 1014909 "-"-
Mar 19 14:37:31 frontend3 server[124]: Reading from device: /dev/hda
192.0.2.55 - - [19/Mar/2014:14:37:31 +0000] "GET /images/compass.jpg HTTP/1.0" 200 60044 "-"-
Mar 19 14:37:32 frontend3 server[121]: Received packet from 192.0.2.55
Mar 19 14:37:32 frontend3 worker[61457]: Reading from device: /dev/hda
L69      56%     9 hits           ?:View Help
search: 70430eff-159e-4818-a0e7-f21a7d4ad892      Press n/N to move forward/backward through search results
```



vd: VisiData

name	county	job_title	grade #	ba:	Complaint Type	count	# percent	% histogram
ALVAREZ, JUAN M	FRESNO	GENERAL EDUCATION ...	12		HEAT/HOT WATER	10207	0.46	*****
BOYD, CLAUDE A	DISTRICT OF COLUMB...	OFC AUTOMATION CLE...	4		Animal in a Park	54	0.00	
BRITT, ROBERT E	DISTRICT OF COLUMB...	MISCELLANEOUS CLER...	5		PAINT/PLASTER	2664	0.12	*****
CASTRO, JESSICA	DISTRICT OF COLUMB...	ADMIN AND OFFICE S...	7		Sanitation Conditi...	1030	0.05	****
CHASTANG, LINDA EAR...	DISTRICT OF COLUMB...	MISCELLANEOUS ADMI...	14		Other Enforcement	293	0.01	*
CHAVEZ, CHRISTINE	DISTRICT OF COLUMB...	MISCELLANEOUS ADMI...	13		Street Light Condi...	4326	0.19	*****
CLIFFORD, CAROL L	DISTRICT OF COLUMB...	MISCELLANEOUS ADMI...	0		PLUMBING	2200	0.10	*****
CORTEZ, SANDRA A	DISTRICT OF COLUMB...	GENERAL EDUCATION ...	13		Noise - Commercial	2456	0.11	*****
DE LA GARZA, RUBY S	HIDALGO	GENERAL EDUCATION ...	12		Noise - Residential	9163	0.40	*****
DIAZ, VLADIMIR A	MIAMI-DADE	GENERAL EDUCATION ...	12		Noise - Street/Sid...	1778	0.08	*****
DOUGLAS, WALTER W	LEXINGTON	MISCELLANEOUS ADMI...	14		Water System	2335	0.11	*****
FLORES, MARILOU	DISTRICT OF COLUMB...	MISCELLANEOUS ADMI...	12		Graffiti	423	0.02	**
GARDNER, KURT J	MADISON	MISCELLANEOUS ADMI...	13		Noise - Vehicle	844	0.04	***
GOLDBERG, MARIA	DISTRICT OF COLUMB...	MISCELLANEOUS ADMI...	15		Maintenance or Fac...	332	0.01	*
GONZALEZ, ROBERTO JR	IMPERIAL	GENERAL EDUCATION ...	12		General Constructi...	1343	0.06	*****
GUY, DWIGHT N	LOGAN	MISCELLANEOUS ADMI...	13		Drinking	64	0.00	
HARTSFIELD, LARRY D	GUILFORD	MISCELLANEOUS ADMI...	13		DOOR/WINDOW	1655	0.07	*****
HODGE, HORACE D	WALLER	MISCELLANEOUS ADMI...	12		Homeless Person As...	1879	0.08	*****
JAMES, KRISTEN	DISTRICT OF COLUMB...	MISCELLANEOUS CLER...	4		Dirty Conditions	1446	0.06	*****
JOHNSON, ALLISON C	EAST BATON ROUGE	MISCELLANEOUS ADMI...	13		Blocked Driveway	4910	0.22	*****
KOZISKI, STEPHANIE ...	DISTRICT OF COLUMB...	MANAGEMENT AND PRO...	13		Animal Abuse	397	0.02	*
MARTIN, KARLA A	DISTRICT OF COLUMB...	MISCELLANEOUS ADMI...	14		Lead	1934	0.09	*****
MC LAREN, ANTONIO A	PETERSBURG	MISCELLANEOUS ADMI...	13					
MILLER, PIA M	DISTRICT OF COLUMB...	GENERAL BUSINESS A...	12					

FederalEmployeeSalaries-2012]

311_Service_Requests_from_2010_to_Present_Complaint F

180 4% grouping



A typo = A solution



The screenshot shows a terminal window with a dark background and a red header bar. The header bar displays the text "nvbn@nvbn-desktop: ~/exp/thefuck 76x18". Below the header, the terminal prompt is visible: "→ thefuck git:(master) X |". The rest of the terminal window is mostly blank, indicating that the command has not yet been run or is still being typed.



A typo, shell configuration

```
~ >>> tdlr hey
zsh: correct tdlr to tlrd [nyae]? y
Warning: The cache hasn't been updated for 52 days.
You should probably run `tlrd --update` soon.
Warning: Page `hey` not found in cache.
Try updating with `tlrd --update`, or submit a pull request to:
https://github.com/tlrd-pages/tlrd
```

Example of a default configuration by Zsh



A SSH access, think MOSH

```
[mosh]
mosh: Last contact 10 seconds ago. [To quit: Ctrl-^ .]

Mosh Web site ideas
* What should it look like?
** Ideas
*** Boring free software Web site...
*** Old-timey newspaper: "Amazing remote shell program sweeps nation!!!!"
*** Make it look like a fake startup company. <-- Let's go with this.

* Benefits of Mosh
** Roam across Wi-Fi networks or to cell without dropping connection.
** More pleasant to type -- intelligent local echo is instant.
** No need to be superuser to install.
** Mosh doesn't fill up buffers, so Ctrl-C works quickly on runaways.
** Designed from scratch for Unicode; fixes bugs in SSH, other terminals.
** Free / open-source software.

-UU-:**--F1      All L19  (Org)-----
```

- Remote or Travel
- Intermittent connection (3G/4G/Wifi)
- Persistence during changes



Alias Bash

```
alias cat="bat -pp" #less: --style=grid
alias ls="exa"
alias cd="z" #eval "$(zoxide init zsh)"
alias du="dust"
alias grep="ripgrep"
alias ps="procs"
alias find="fd" #fselect
alias sed="sd"
alias top="gotop" #"ytop"
alias sysup='brew update && \
brew upgrade; brew cleanup'
```



Alias Bash (cont.)

```
~ >>> echo $SHELL  
/bin/zsh  
~ >>> ls -larth  
exa: Option --time (-t) has no "h" setting (choices: modifi  
~ >>> bat test.sh
```

	File: test.sh
	Size: 22 B

1	echo \$SHELL
2	ls -larth

```
~ >>> ./test.sh  
/bin/zsh  
total 23808  
drwxr-xr-x+ 4 daparici staff 128B Jun 28 2019 Public
```

Tips



Keep a bash on hand

```
daparicio@macair: ~
Last login: Sun Apr 10 09:52:02 on console

[daparicio: ~] ~
$ echo $SHELL
/bin/zsh
[daparicio: ~] ~
$ zsh --version
zsh 5.8 (x86_64-apple-darwin20.0)
[daparicio: ~] ~
Last login: Sun Apr 10 10:28:08 on ttys001
[daparicio: ~] ~
$ bash
[daparicio: ~] ~
The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
[bash-3.2$] bash --version
GNU bash, version 3.2.57(1)-release (x86_64-apple-darwin20)
Copyright (C) 2007 Free Software Foundation, Inc.
[bash-3.2$] echo $SHELL
/bin/zsh
```

- In order to test, beforehand, your deployment and configuration scripts on a new infra
- Recent Bash >= 4.2 (February 2011)
- And a glance at the lib "amplib"

set -x

```
PS4=' (${BASH_SOURCE##*/}:$LINENO
${FUNCNAME[0]}:-main) '
```

Assemble your commands

```
curl -s
https://presidentielle2022.conseil-constitutionnel.fr/telechargement/parrainagestotal.json | jq -r -s '.[]' | group_by(.Candidat)
| map({"Candidat·e": .[0].Candidat, Nombre: length}) |
sort_by(.Nombre) | .[]'
```

```
{
  "Candidat·e": "HIDALGO Anne",
  "Nombre": 1440
}
{
  "Candidat·e": "MACRON Emmanuel",
  "Nombre": 2098
}
```

Compose your commands

```
du -x --max-depth=1 | sort -rn | awk -F / -v c=$COLUMNS  
'NR==1{t=$1} NR>1{r=int($1/t*c+.5); b="\033[1;31m"; for (i=0; i<r;  
i++) b=b"#"; printf " %5.2f%% %s\033[0m %s\n", $1/t*100, b,  
$2}'|tac
```

```
pi@raspberry:/# du -x --max-depth=1|sort -rn|awk -F / -v c=$COLUMNS 'NR==1{t=$1} NR>1{r=int($1/t*c+.5); b="\033[1;31m"; for (i=0; i<r; i++) b=b"#";  
printf " %5.2f%% %s\033[0m %s\n", $1/t*100, b, $2}'|tac  
0.00% media  
0.00% mnt  
0.00% srv  
0.00% lost+found  
0.14% tmp  
0.26% etc  
0.51% # root  
2.51% ### opt  
4.42% ##### boot  
17.40% ##### home  
29.50% ##### var  
45.26% ##### usr
```

Do you talk to strangers?

So why do you accept to do :

```
curl -s <randomURL> | (sudo) bash
```



Save your .dotfiles

(aka your configuration files)

```
vcsh init vim
vcsh vim add ~/.vimrc ~/.vim
vcsh vim commit -m 'Initial commit of my Vim configuration'
# optionally push your files to a remote
vcsh vim remote add origin <remote>
vcsh vim push -u origin master
# from now on you can push additional commits like this
vcsh vim push
# If all that looks a lot like standard git,
# that's no coincidence; it's a design feature.
```

Bonus: mac aficionados

- Remove desktop icons 

```
defaults write com.apple.finder CreateDesktop false && killall Finder
```

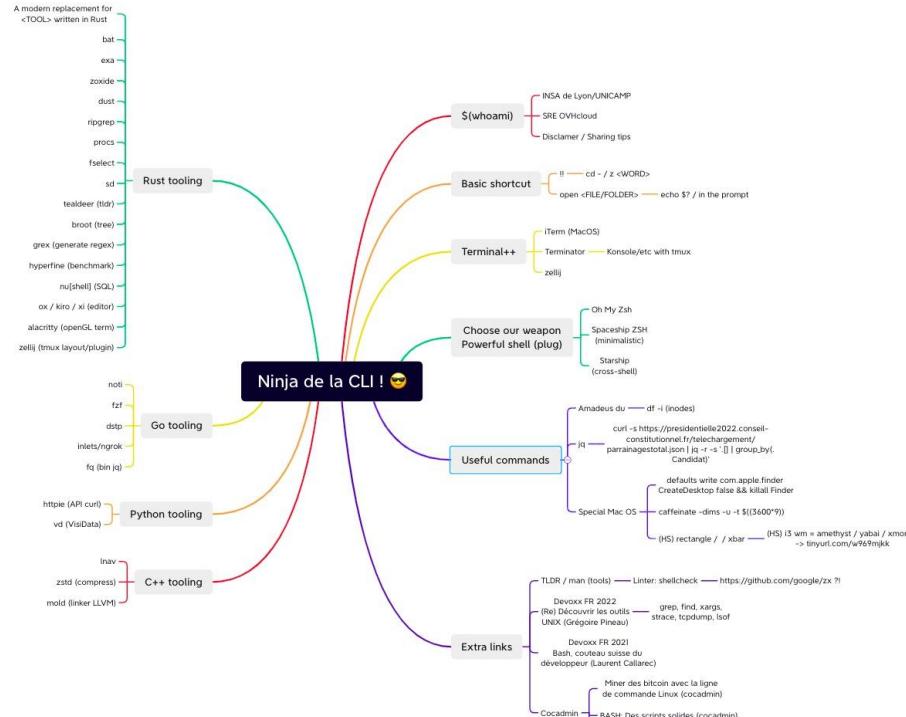
- Prevent automatic sleep mode 

```
caffeinate -dims -u -t $((3600*9))
```

Conclusion



The mega-list



Mindmap



For further information

- Installed tools via homebrew / chocolatey / apt / dnf...
- ShellCheck (linter)
- Devoxx FR 2022: (Re) Découvrir les outils UNIX (Grégoire Pineau)
- Devoxx FR 2021: Bash, couteau suisse du développeur (Laurent Callarec)
- Cocadmin: tmux, 10 astuces CLI
- Wizard Zines de Julia Evans
- Understanding X in a visual way, de Aurélie Vache
- Rewritten in Rust: Modern Alternatives of Command-Line Tools (zaiste.net)

find

`find` searches a directory for files

`find /tmp -type d -print`

directory which files action to do to search files with the files

here are my favourite find arguments!

-name/-iname case insensitive the filename! eg <code>-name '*.txt'</code>	-path/-ipath search the full path! <code>-path '/home/*/*.go'</code>
-size 0 find empty files! Useful to find files you created by accident	-print 0 print null-separated filenames Use with xargs -0!
-exec COMMAND action: run COMMAND on every file found	-delete action: delete all files found



A list of new(ish) command line tools

(12 April 2022)

Julia Evans

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A list of new(ish) command line tools

Hello! Today I asked [on twitter](#) about newer command line tools, like `ripgrep` and `fd` and `fzf` and `exa` and `bat`.

I got a bunch of replies with tools I hadn't heard of, so I thought I'd make a list here. A lot of people also pointed at the [modern-unix](#) list.

replacements for standard tools

<https://jvns.ca/blog/2022/04/12/a-list-of-new-ish-command-line-tools/>



Liste de nouveaux outils en CLI

(19 June 2022)



David Aparicio

Une liste de nouveaux outils en ligne de commande

Quels sont vos nouveaux outils en ligne de commande préférés ?

David Aparicio (VF), Julia Evans (VO)

Dernière mise à jour le 19 Jun 2022 · 4 min de lecture · Veille Techno, Blog



Crédits photographiques: Philipp Katzenberger

Publié originalement en anglais par [@b0rk](#) à l'adresse <https://jvns.ca/blog/2022/04/12/a-list-of-new-ish-command-line-tools/>.

Traduit et publié le 19 juin 2022 par [@dadideo](#).

<https://davidaparicio.gitlab.io/website/fr/post/cli/>

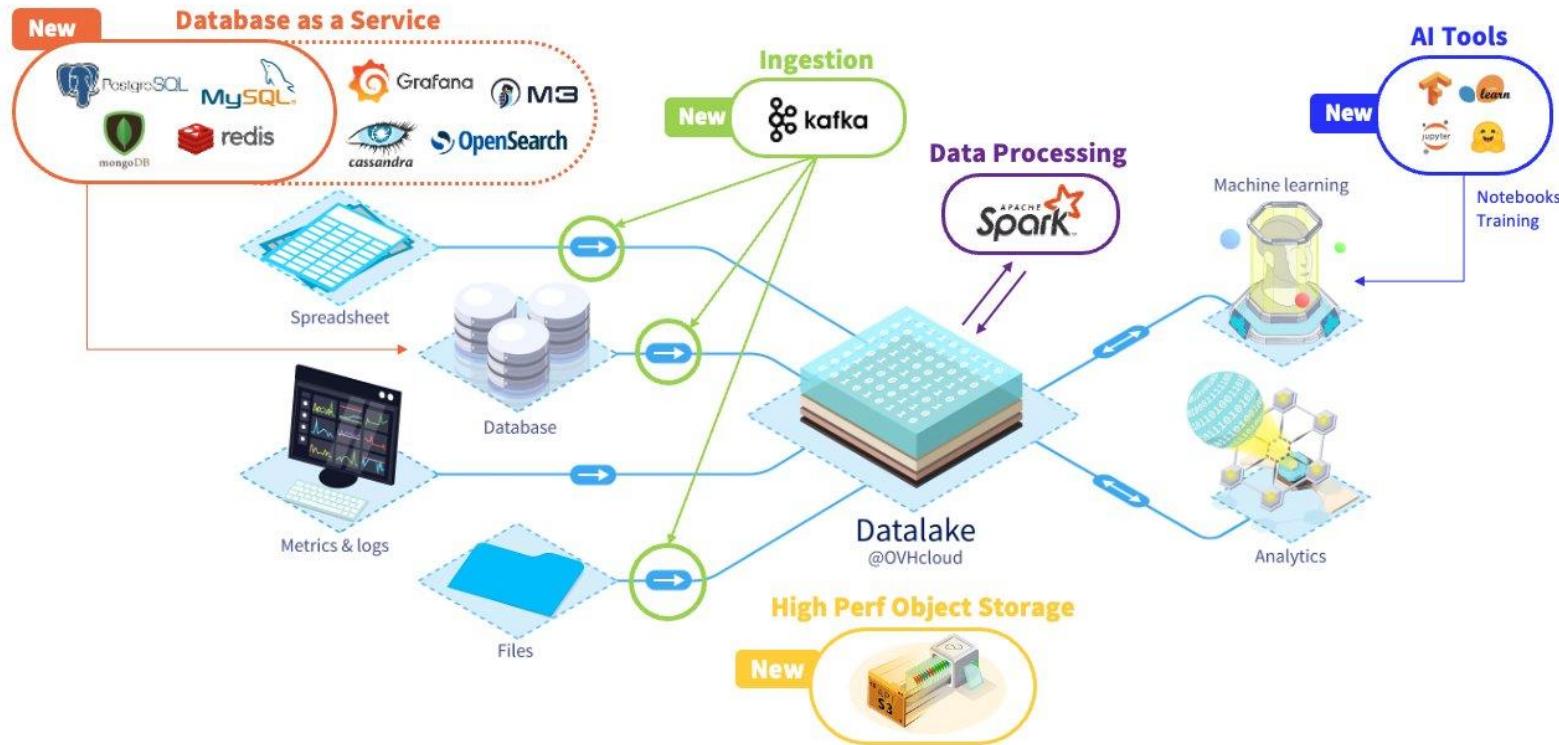


David Aparicio (@dadideo)



- 2015 INSA de Lyon / UNICAMP
- Facebook Open Academy / MIT AppInventor
- 2017 Dev(Sec)Ops @ AMADEUS (Nice, 2 ans)
- 2019 Data(Sec)Ops @ OVHcloud (Lyon, 3 ans)

GIS-DATA



careers.ovhcloud.com



Thank a lot



I need your feedback & tools

<https://openfeedback.io/cA67UrN9jU6glxRGVmmW>

Link to the slides in the comments