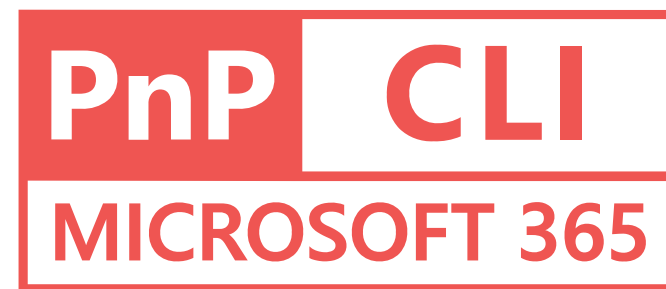




# CLI FOR MICROSOFT 365





# OVER MIJ

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Martin Lingstuyt

MVP | Microsoft 365 Architect

- I4-YOU Business Solutions
- Family man 
- Cycling  

○ **Twitter:** @martinlingstuyt

○ **GitHub:** @martinlingstuyt

○ **Blog:** <https://www.blimped.nl> 



# BEDOELD VOOR?

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Eindgebruikers



IT Admins




Developers

How can they share theirs?



“Let nobody tell you you’re not technical”


· Scott Hanselman ·


A man with a grey beard and glasses is sitting at a white desk, looking at a laptop. He is wearing a white plaid jacket over a white t-shirt. He has his right hand on the laptop keyboard and his left hand near his glasses, appearing to be in deep thought. The background shows a modern office setting with a wooden floor and a gold-colored metal frame.


“Je typt wat,  
je drukt op  
enter en er  
gebeurt wat”


# TERMINOLOGIE


**Command line interface**  
*Let's be trendy, let's ask ChatGPT*

 Reset Thread

 Dark Mode

 OpenAI Discord

 FAQ

 Log out



What is a command line interface?




A command line interface (CLI) is a type of user interface that allows users to interact with a computer or device by entering commands through a text-based interface. In a CLI, the user types in commands and receives feedback from the system in the form of text-based output. CLI's are often used in programming and system administration tasks, and offer a more efficient way to interact with a system compared to graphical user interfaces (GUI).



 Try again



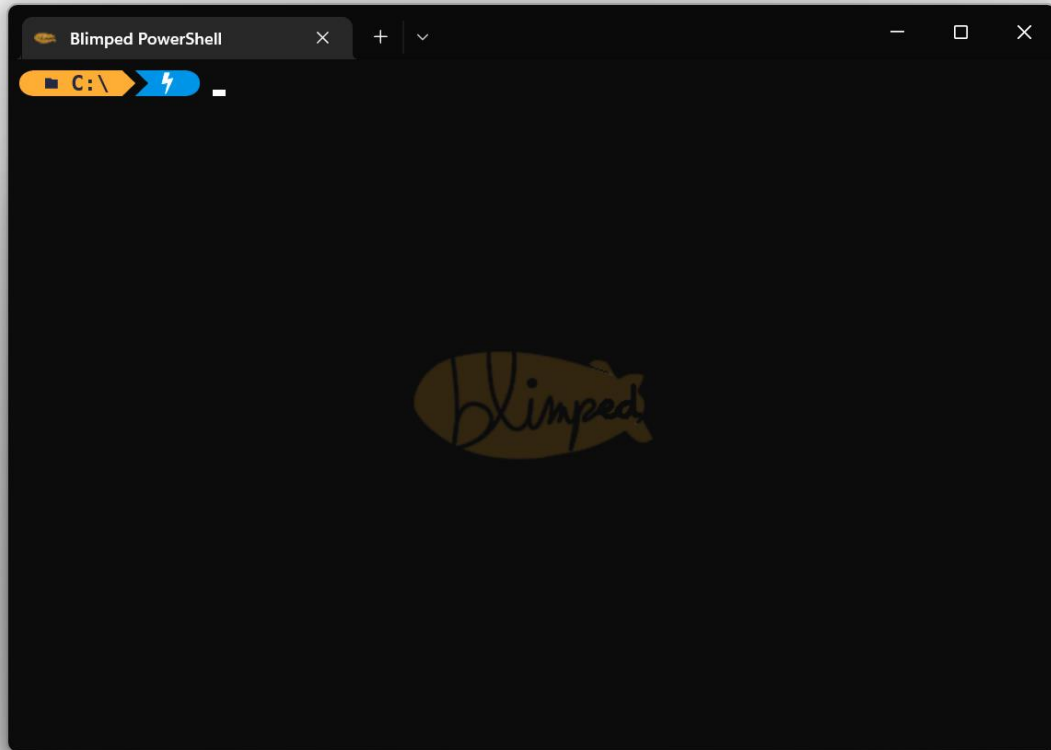
A man with a grey beard and glasses is sitting at a white desk, looking at a laptop. He is wearing a white plaid jacket over a white t-shirt. He has his right hand on the laptop keyboard and his left hand near his glasses. The background shows a wooden floor and a white wall with a gold-colored geometric structure.

“Je typt wat,  
je drukt op  
enter en er  
gebeurt wat”

# TERMINOLOGIE

## *Terminal*

*De wrapper applicatie die je gebruikt voor command line.*





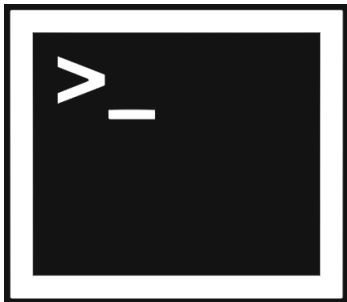
What used  
to be called  
a Computer  
Terminal



# TERMINOLOGIE

## *Shell*

*Het programma dat je bedoelingen probeert te vertalen naar instructies*



Windows CMD



PowerShell



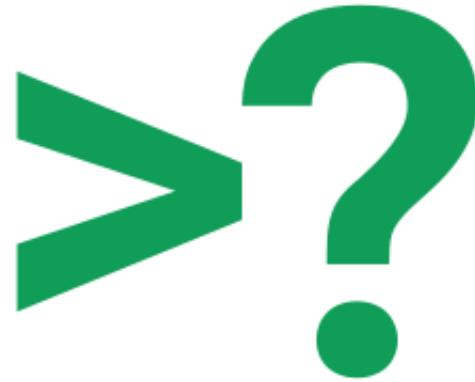
Bash  
(Aka bourne again shell)




Z-shell / zsh  
(Aka Extended Bourne Shell)

# TERMINOLOGIE

*The command line... de begrippen worden door elkaar heen gebruikt*



A man with a grey beard and glasses is sitting at a white desk, looking at a laptop. He is wearing a white plaid jacket over a white t-shirt. He has his right hand on the laptop keyboard and his left hand near his glasses. The background shows a wooden floor and a white wall with a gold-colored geometric structure.

“Je typt wat,  
je drukt op  
enter en er  
gebeurt wat”

WHY

Ooit was  
alles  
command  
line



# Maar toen kwam de zon op...

(de zon van de GUI verdreef het duister van de commandline)



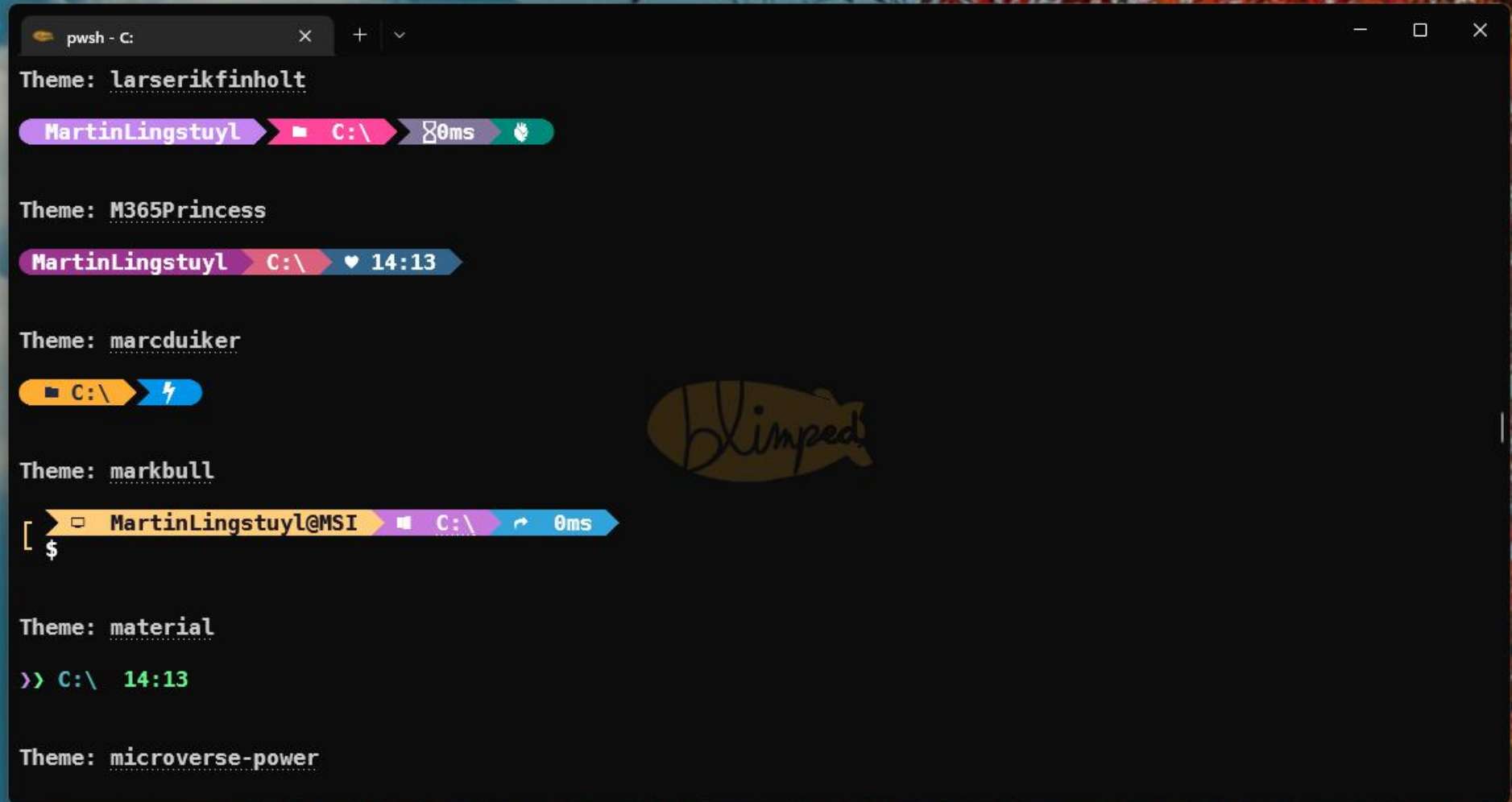


Anno 2022: de  
commandline is  
more alive  
than ever



WHY

Komt het door  
de mooie kleurtjes?



# CLI VS GUI



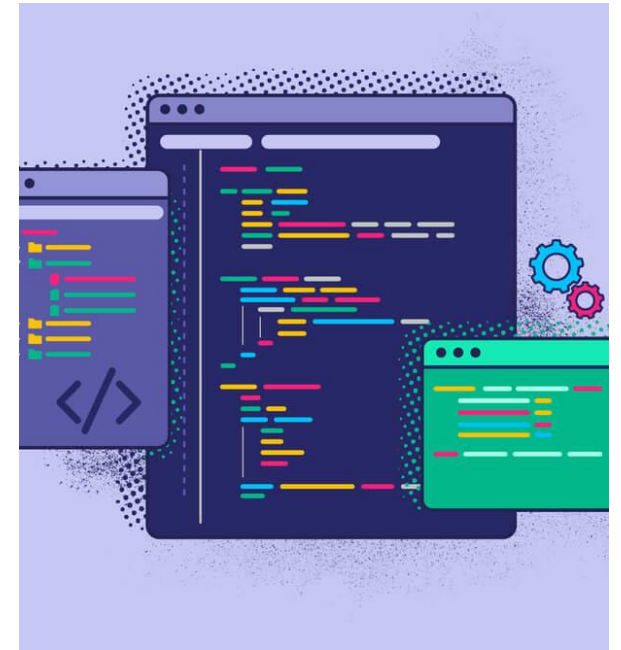
CLI's zijn goed voor herhalende taken



CLI's zijn snel  
(als je weet wat je doet)



CLI's zijn stabiel  
(API's veranderen vaak minder snel)

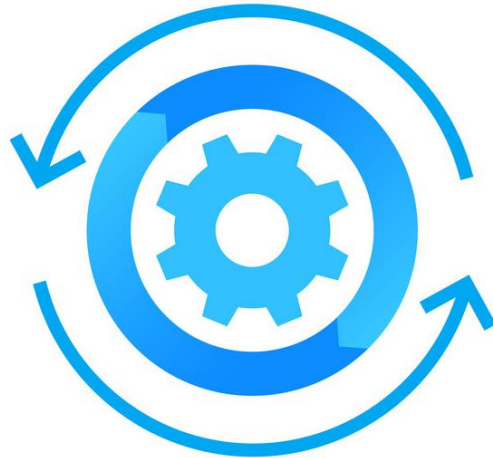


CLI's ontsluiten de kracht van scripting

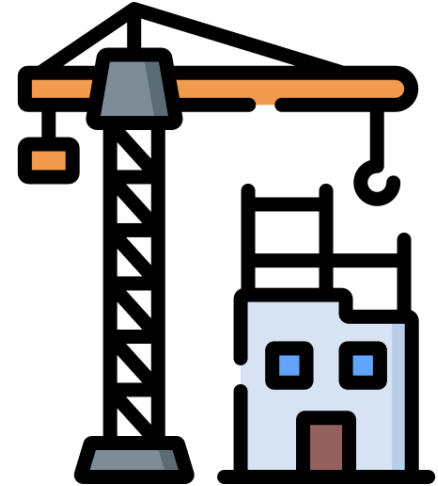
# TOEPASSINGEN



Reports



Automation



Provisioning &  
Configuration

# CLI FOR MICROSOFT 365



SharePoint



Teams



OneDrive



Exchange



Power Apps



Power Automate



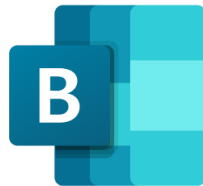
Planner



To Do



Azure AD



Bookings



Yammer



OneNote

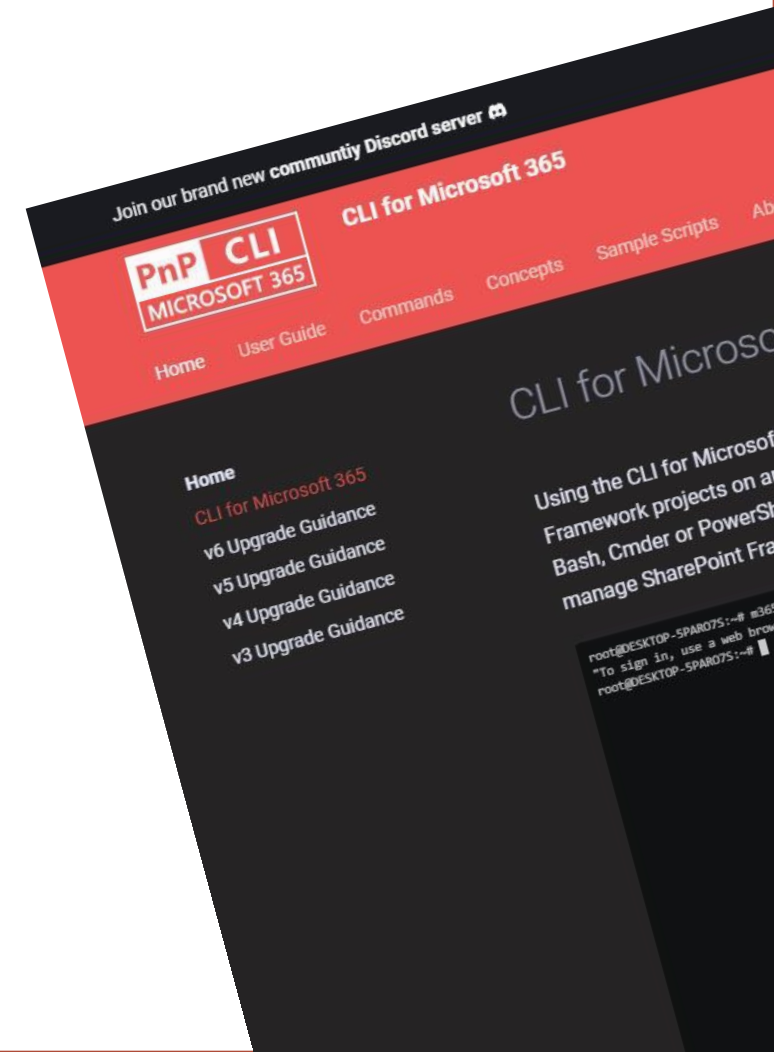


Graph



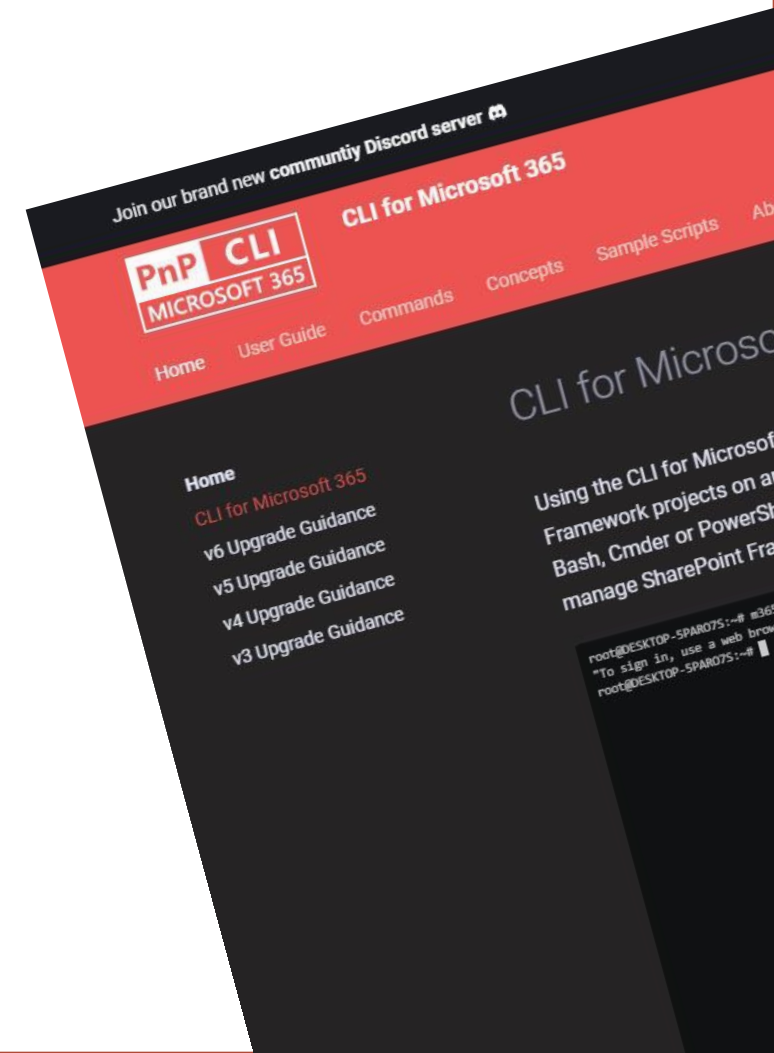
Purview

## SPFx



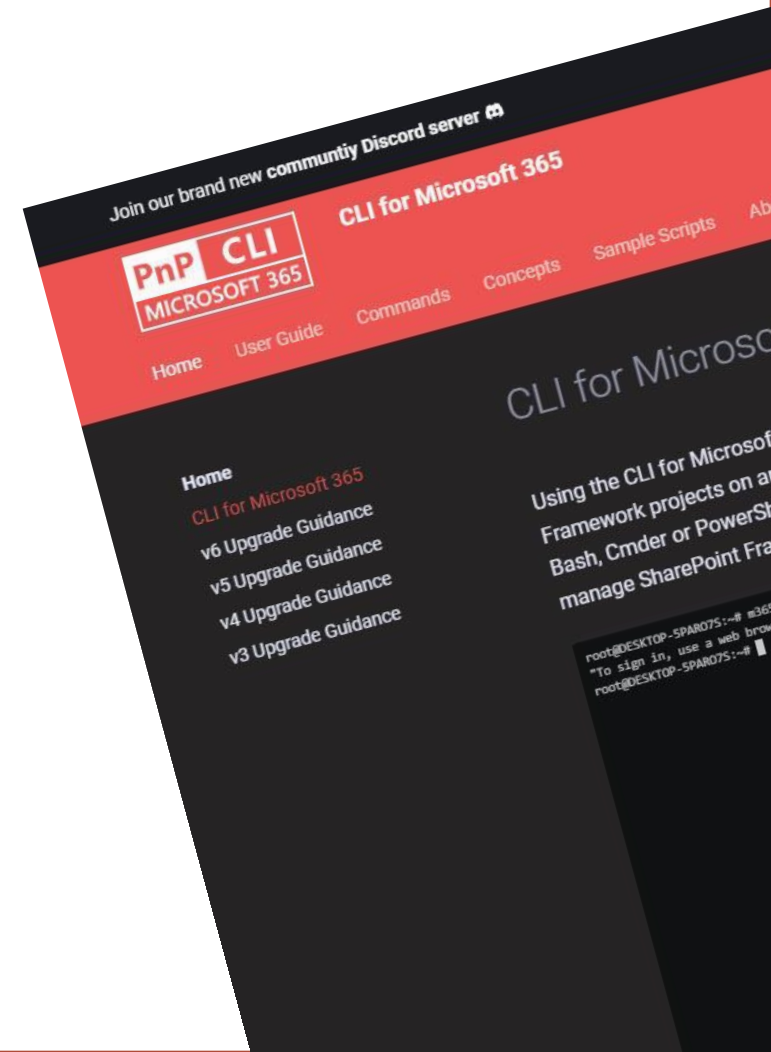
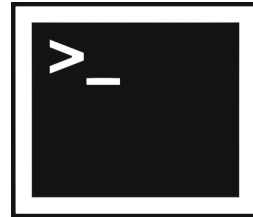
# OPEN SOURCE

*De kracht van Open Source: gevormd door vraag en aanbod  
en gebouwd door de tech community.*



# CROSS PLATFORM

*Echt Cross-platform. (Meer nog dan PowerShell Core)*



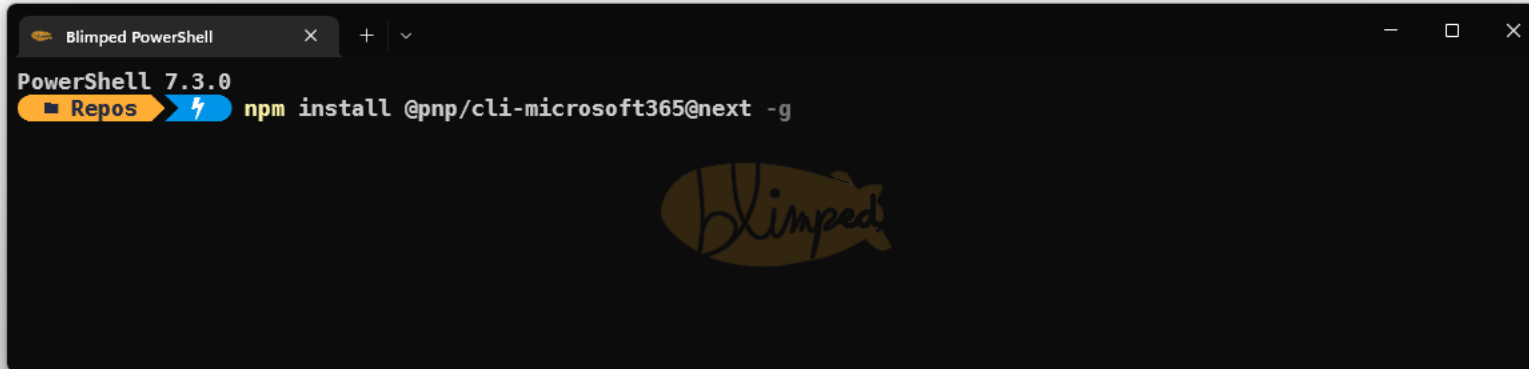
# INSTALLEREN



```
PowerShell 7.3.0  
Repos npm install @pnp/cli-microsoft365 -g
```

A terminal window titled "Blimped PowerShell" showing the command `npm install @pnp/cli-microsoft365 -g` being executed. The terminal output displays the "blimped" logo, which is a stylized fish shape with the word "blimped" written inside in a cursive font.

De laatste release



```
PowerShell 7.3.0  
Repos npm install @pnp/cli-microsoft365@next -g
```

A terminal window titled "Blimped PowerShell" showing the command `npm install @pnp/cli-microsoft365@next -g` being executed. The terminal output displays the "blimped" logo, which is a stylized fish shape with the word "blimped" written inside in a cursive font.

De beta versie



# CONFIGUREREN

*Auto-completion aanzetten*



```
PowerShell 7.3.0
Repos m365 cli completion pwh setup --profile $profile_
```

The screenshot shows a PowerShell terminal window with a dark background. The title bar reads 'Blimped PowerShell'. The terminal output shows 'PowerShell 7.3.0' and a command prompt with 'Repos' as the current directory. The command 'm365 cli completion pwh setup --profile \$profile\_' is entered. A blue lightning bolt icon is visible next to the 'm365' command. The Blimped logo, a stylized fish-like shape with the word 'Blimped' written inside, is centered in the terminal.

# Demo: Basic Operations



# SUMMARY

- Anders dan PowerShell
- CommandLets VS workload, command en subcommands
- --opties met dubbele streepjes, -o shorts met enkel streepje.
- Output als json/text. Geen .NET
- Subcommands per workload
- Standaard CRUD verbs per workload:  
list, get, add, set, remove



# Demo: Reports



# SUMMARY

- Output eenvoudig exporteren naar CSV
- Combineren met andere gegevens via scripting
- Eenvoudig in te laden in Power BI.



# Demo: Provisioning



# SUMMARY

- Als voorbeeld: Site template en site script aanmaken en toepassen op x nieuwe sites.
- File tokens om gegevens uit bestanden te laden.
- Gebruiken wat voor command je ook nodig hebt.
- Combineren met scripting



# Demo: Automation





# SUMMARY

- Op een Azure PowerShell Function het CLI draaien.
- Installeer het CLI lokaal (zonder -g) via Kudo.
- Path bijwerken zodat je m365 aan kunt reopen.
- Node.JS versie instellen in de Function config.
- Managed Identity gebruiken



# Demo: SPFx Development



# SUMMARY

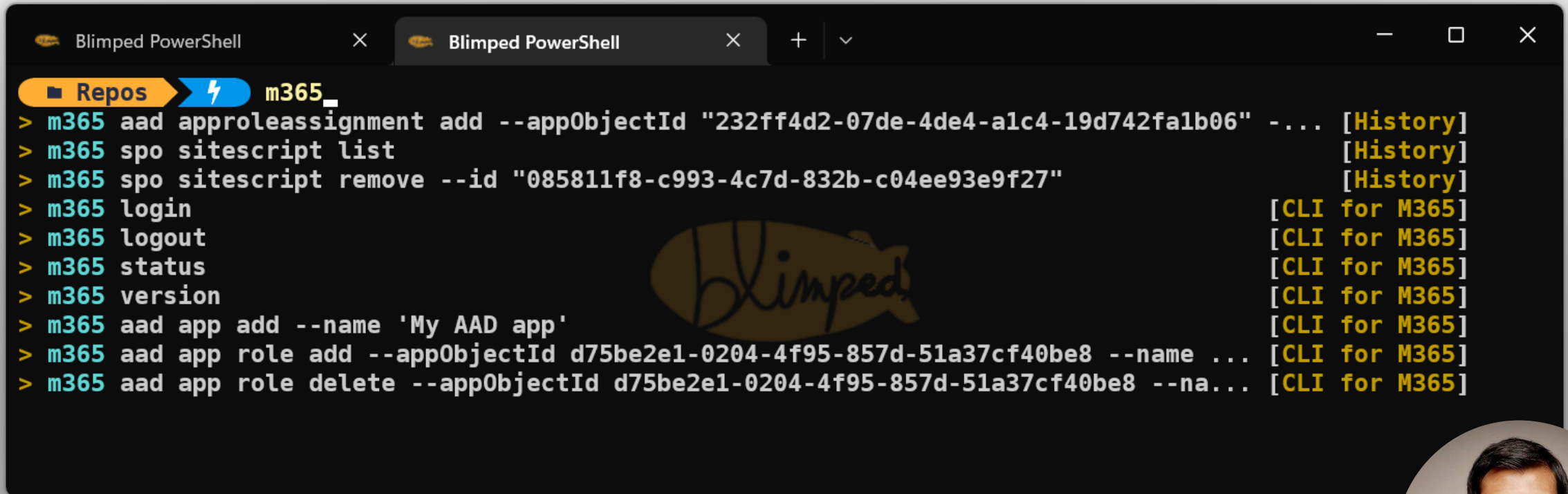
- Een aantal commands om je development flow te verbeteren.
- Je development omgeving doorlichten om te kijken of je de juiste tools hebt.
- Je project doorlichten.
- Eenvoudig je SPFx oplossing upgraden met instructies van het CLI
- Project hernoemen.



# DEPLOYMENT VIA PIPELINE



# PSREADLINE + PREDICTOR



The screenshot shows a PowerShell terminal window with two tabs, both titled "Blimped PowerShell". The active tab shows a command prompt with a folder icon labeled "Repos" and a lightning bolt icon labeled "m365\_". The terminal displays a list of commands and their corresponding outputs or predictions:

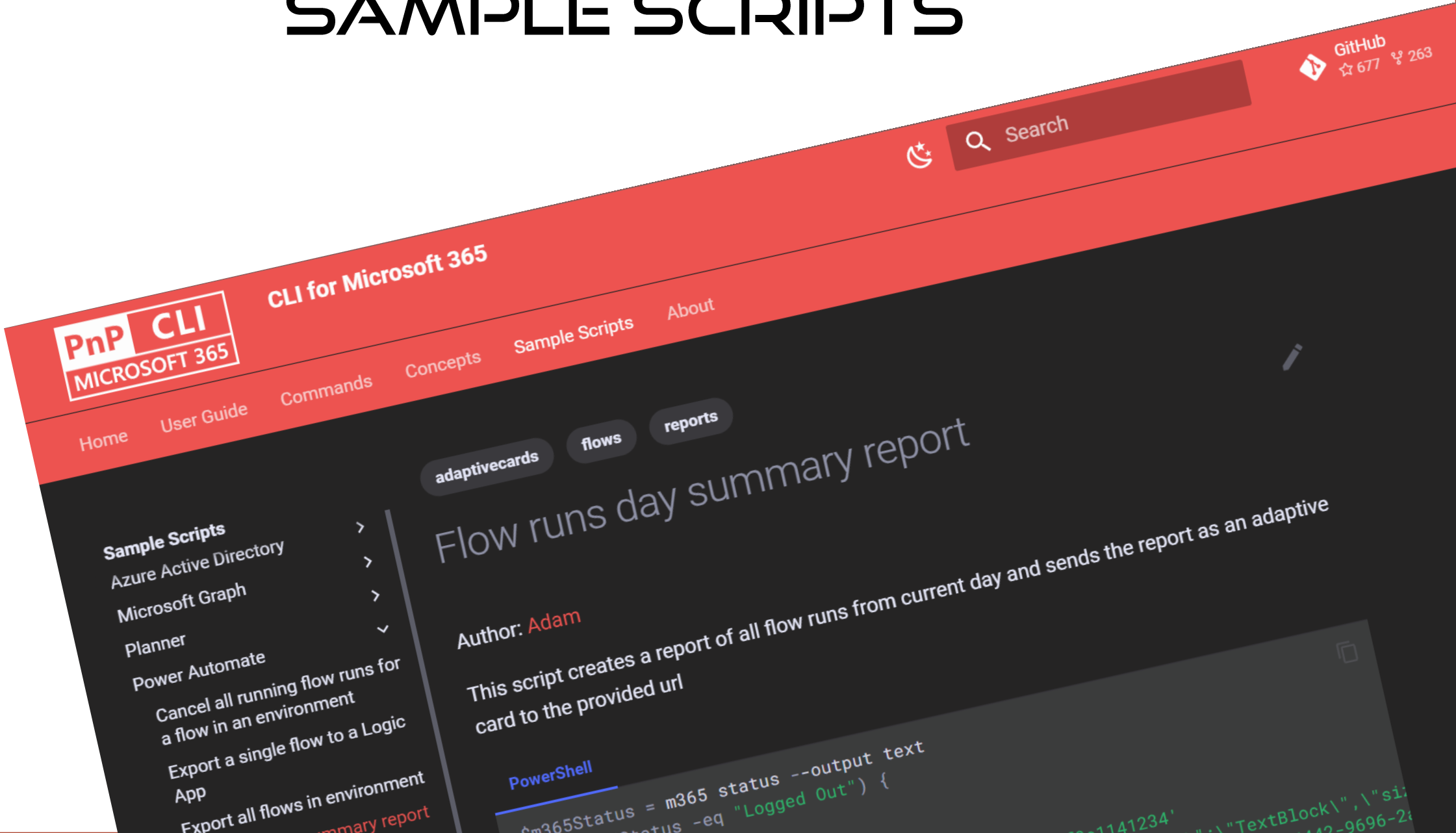
```
> m365 aad approleassignment add --appObjectId "232ff4d2-07de-4de4-a1c4-19d742fa1b06" -... [History]
> m365 spo sitescript list [History]
> m365 spo sitescript remove --id "085811f8-c993-4c7d-832b-c04ee93e9f27" [History]
> m365 login [CLI for M365]
> m365 logout [CLI for M365]
> m365 status [CLI for M365]
> m365 version [CLI for M365]
> m365 aad app add --name 'My AAD app' [CLI for M365]
> m365 aad app role add --appObjectId d75be2e1-0204-4f95-857d-51a37cf40be8 --name ... [CLI for M365]
> m365 aad app role delete --appObjectId d75be2e1-0204-4f95-857d-51a37cf40be8 --na... [CLI for M365]
```

A faint "Blimped" logo is visible in the background of the terminal window.

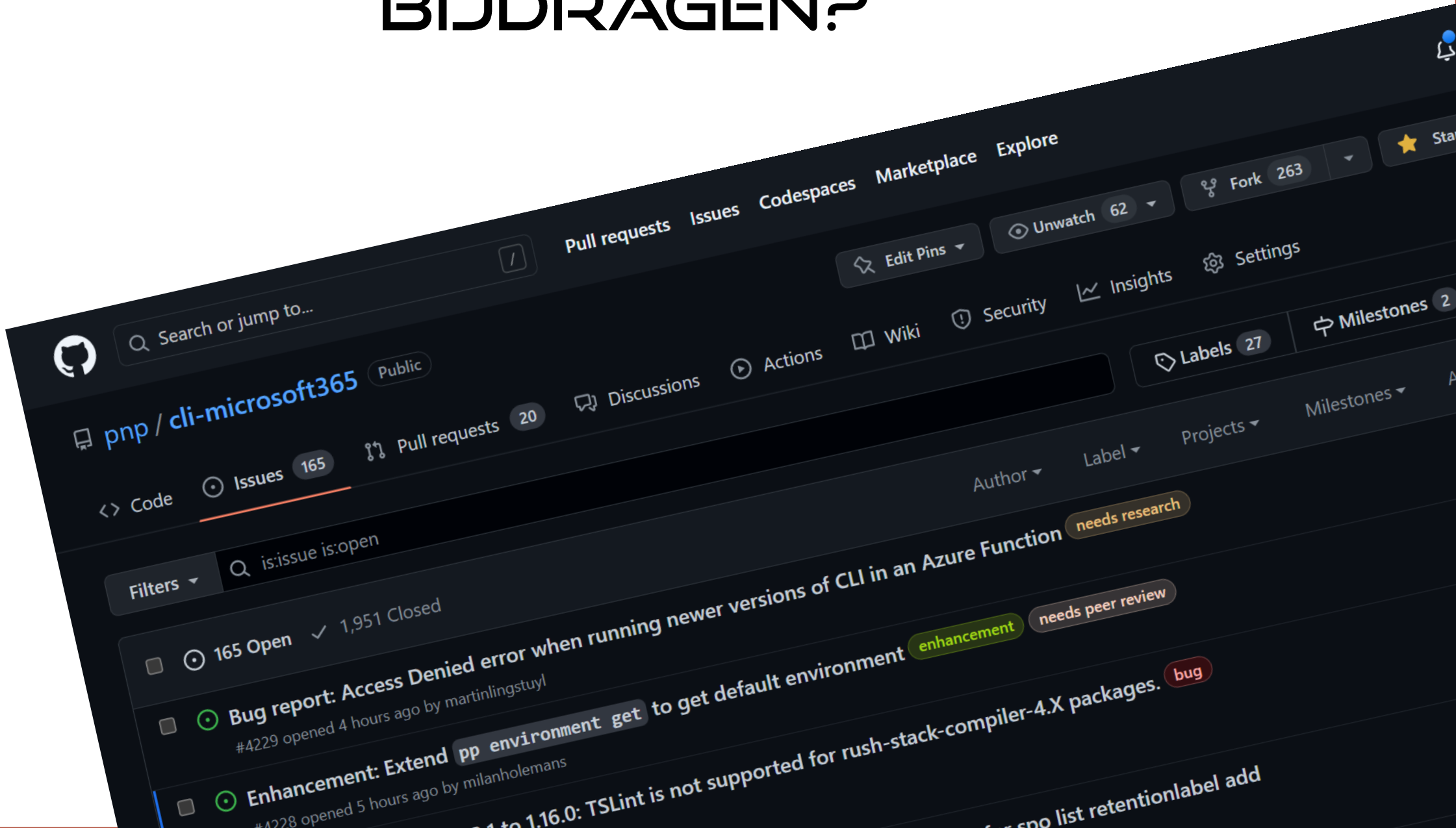
By Anoop Tatti



# SAMPLE SCRIPTS



# BIJDRAGEN?



# RESOURCES, QUESTIONS?

- **CLI for Microsoft 365**

<https://pnp.github.io/cli-microsoft365>

- **Bijdragen?**

<https://github.com/pnp/cli-microsoft365>

- **Running the CLI on Azure Functions**

<https://www.blimped.nl/how-to-run-the-cli-for-microsoft365-on-an-azure-function/>

- **CLI predictor voor PSReadline**

<https://github.com/anoopt/CLI.Microsoft365.PowerShell.Predictor>

