

Next Level Terraform

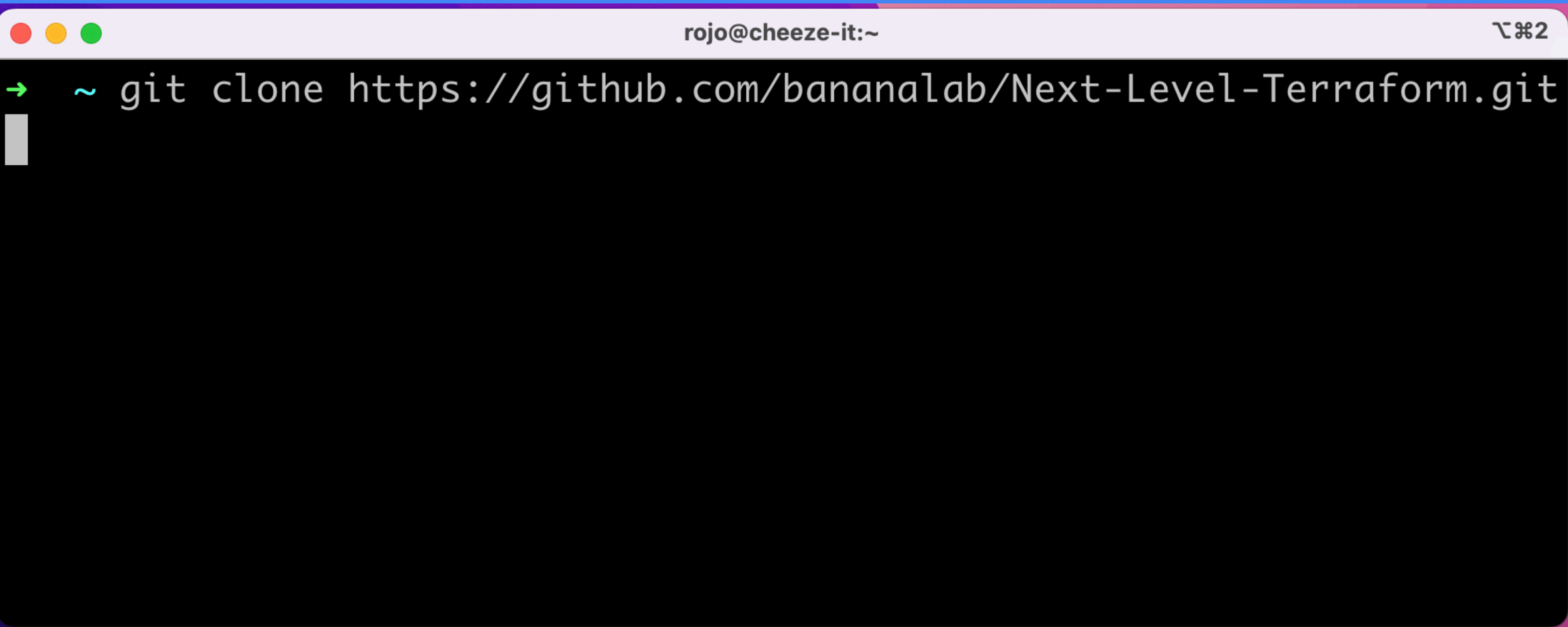
With Robert Jordan

Robert Jordan:

LinkedIn

GitHub





A terminal window with a white title bar and a black body. The title bar contains three colored window control buttons (red, yellow, green) on the left, the text "rojo@cheeze-it:~" in the center, and a zoom icon followed by "#2" on the right. The terminal body has a green prompt character "→" on the left. To its right is a light blue tilde "~" followed by the command "git clone https://github.com/bananalab/Next-Level-Terraform.git". A white cursor block is positioned at the start of the next line.

```
rojo@cheeze-it:~  
→ ~ git clone https://github.com/bananalab/Next-Level-Terraform.git
```

Poll

What is your primary technical function?

1. Software Developer
2. System Architect
3. Operations Engineer (SRE, DevOps, etc.)
4. Supervisor / Technical Management
5. Product / project Management
6. Other (Please post in chat)

Poll

What is your primary cloud platform?

1. AWS
2. Azure
3. GCP
4. On Premises (VMWare, OpenStack, etc.)
5. Other (Please post in chat)

Terraform

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 - Terraform operates at a very low level of abstraction.
 - Community modules are of varying quality.
 - Community modules tend to be too generalized.

Terraform

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 - Terraform open source does not include automated deployment.

Terraform

What's the problem?

- Batteries not included
 - Terraform open source does not include automated deployment.
 - Commercial tooling is very expensive.

Terraform

Ecosystem

- The open source community has stepped up to fill a lot of the gaps.

Terraform

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 - TFlint - Terraform linter.

Terraform

Ecosystem

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 - Code Quality
 - Terratest - Testing framework.
 - Checkov - Security and compliance validator.
 - TFlint - Terraform linter.
 - pre-commit-terraform - Collection of pre-commit hooks.

Terraform

Ecosystem

- The open source community has stepped up to fill a lot of the gaps.
 - Unit testing
 - Terratest - Testing framework.

Terraform

Ecosystem

- The open source community has stepped up to fill a lot of the gaps.
 - Security and Compliance
 - Checkov
 - TFSec

Terraform

Ecosystem

- The open source community has stepped up to fill a lot of the gaps.
 - Cost management
 - Infracost

Terraform Deployments

- Use separate repos for modules and root configs.

Terraform modules

- Layout
 - Monorepo vs per module repo.

Terraform modules

- Testing
 - Static analysis
 - Unit testing

Terraform modules

- Versioning
 - Use semantic versioning
 - Automate releases

Terraform modules

- Demo
 - Create terraform-modules repo.

Terraform Live

- Terraform Live
 - Stores root configs
 - Uses remote state
 - SSoT for infrastructure
 - Continuous Deployment (GitOps)

Terraform Live

- Code walkthrough.

Terraform Live

Continuous Delivery

- Also known as GitOps

Terraform Live

Walkthrough

Break

10 Minutes

Importing

- Terraformer vs. Brute Force

Refactoring

- terraform state mv vs “moved” block.