	I use NixOS btw	
earnings	from 2 years daily driving	ng NixOS

#### **Nix Trinity**

#### NIXOS

A declarative operating system building on top of the Nix package manager

Turn your OS into an executable program

## NIX PACKAGE MANAGER

A declarative package manager building on the Nix language

## NIX LANGUAGE

A functional programming languag

A DSL for producing reproducible builds.

### Nix Language

# Expressions

```
1 let
2  x = 1;
3 in
4  {
5    a = {
6    b = true;
7   };
8    d.e.f = "hello";
9    y = x;
10    config = builtins.readFile ./config.ini;
11 }
```

#### Nix Language

#### Derivations

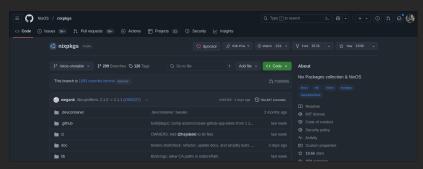
```
1 rustPlatform.buildRustPackage rec {
    pname = "presenterm";
   version = "0.10.1";
   src = fetchFromGitHub {
      owner = "mfontanini";
      repo = "presenterm";
      hash = "sha256- ... 06HsX28mLvTrWh5yIbo/a54M=";
```

#### Nix Package Manager

Nix Store

/nix/store/sm724q6cyqwwghbadxssw9v2xyns56yn-python3-3.11.9
/nix/store/zr51xbkmmkflpp1nm433vfgpkndhp64d-python3-3.11.9

## Package Registry



Demo

#### **NixOS**



- Entire OS managed by Nix
- Fully reproducible
- Only data not replicated

https://github.com/f4z3r/nix

#### **Use Cases**

### Dev Environments

- · Pin tooling
- Ensure consistency
- Use abstractions: DevBox (<a href="https://www.jetifv.com/devbox">https://www.jetifv.com/devbox</a>)

# CI/CD

- · Define pipelines as code
- Run locally

## Fleet Management

- Server management
- · Replacement for pre-built ISOs / Packer