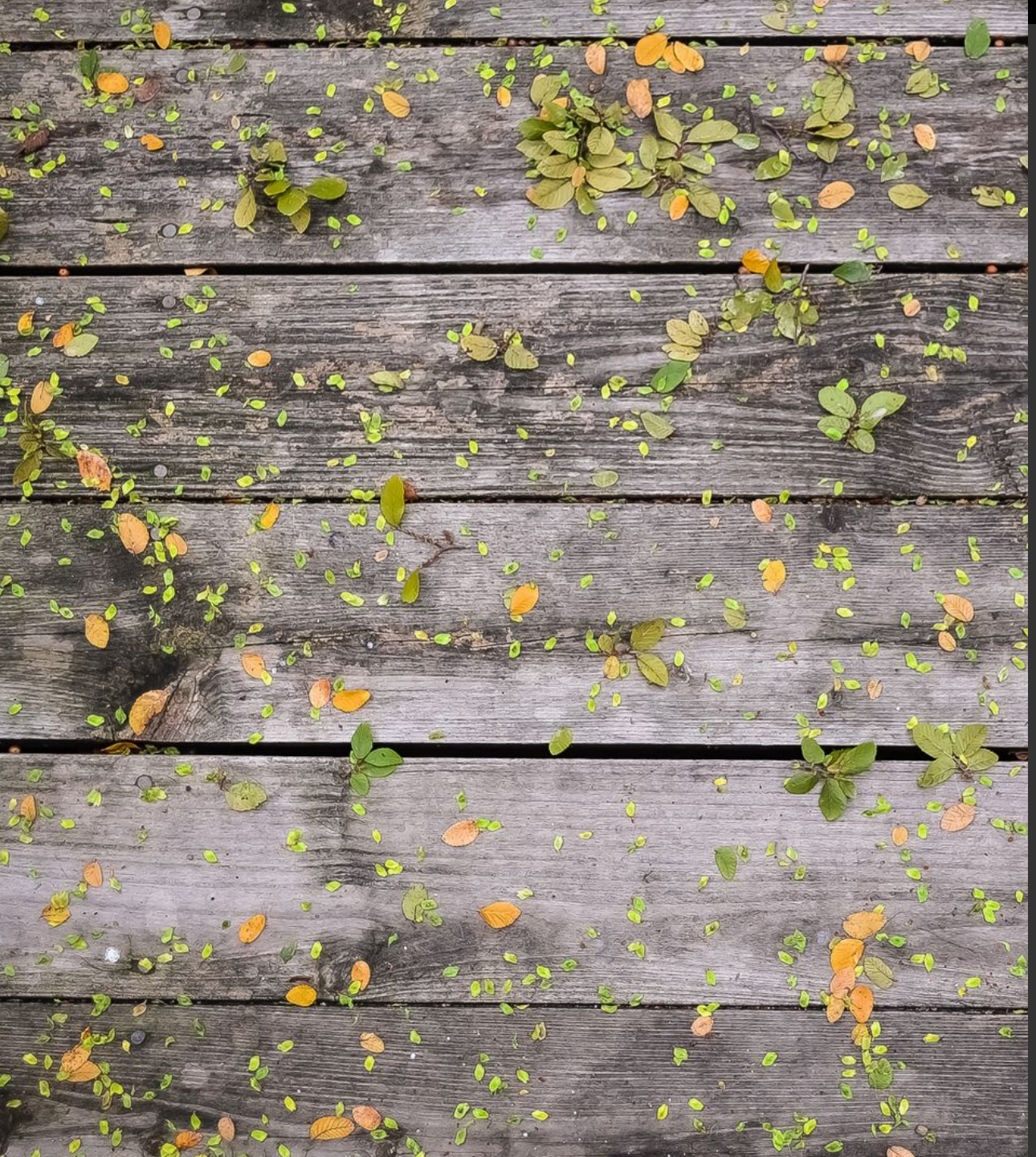


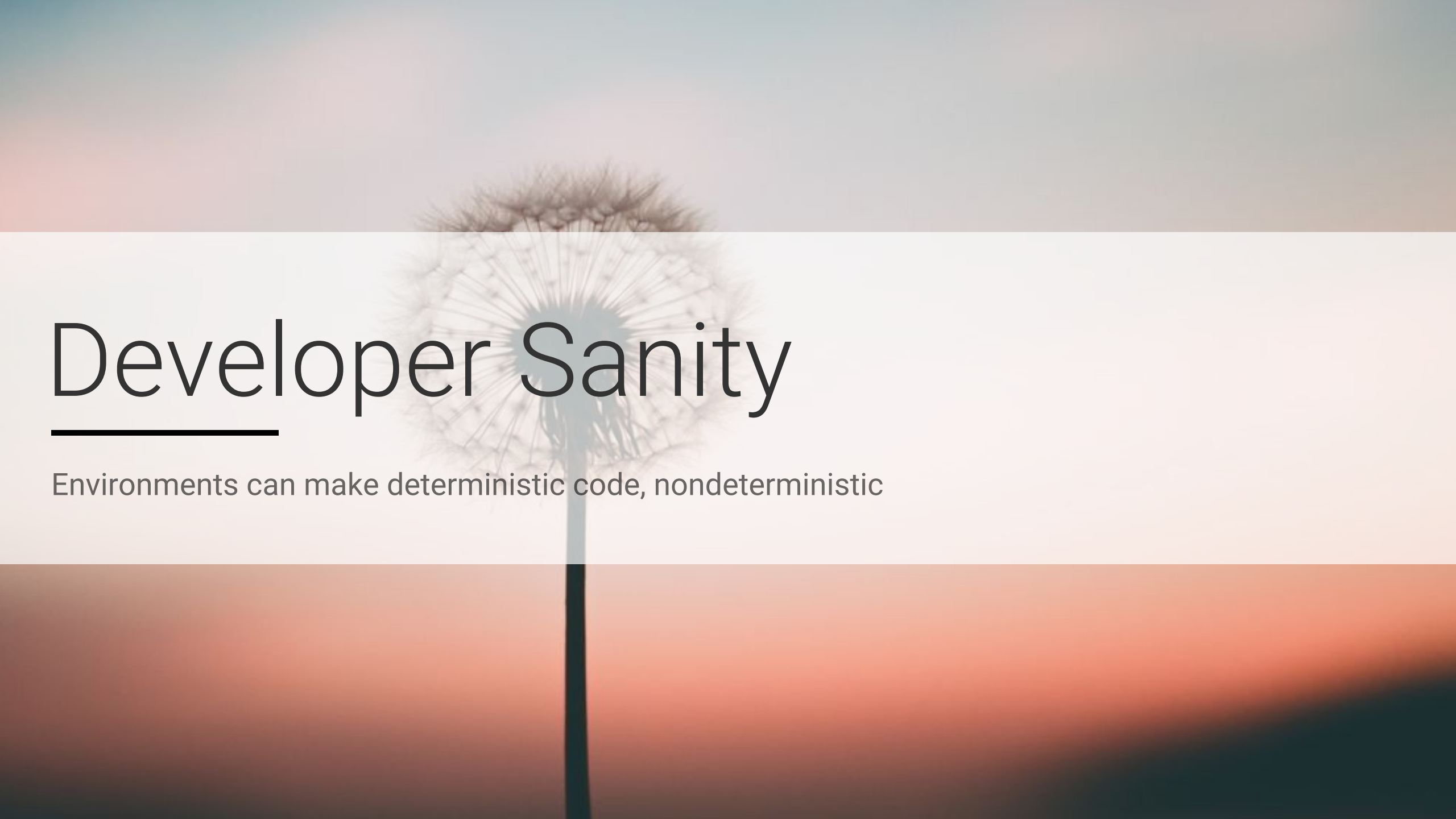
Welcome

Friends

Gant Laborde
Infinite Red

Gant Laborde

@GantLaborde



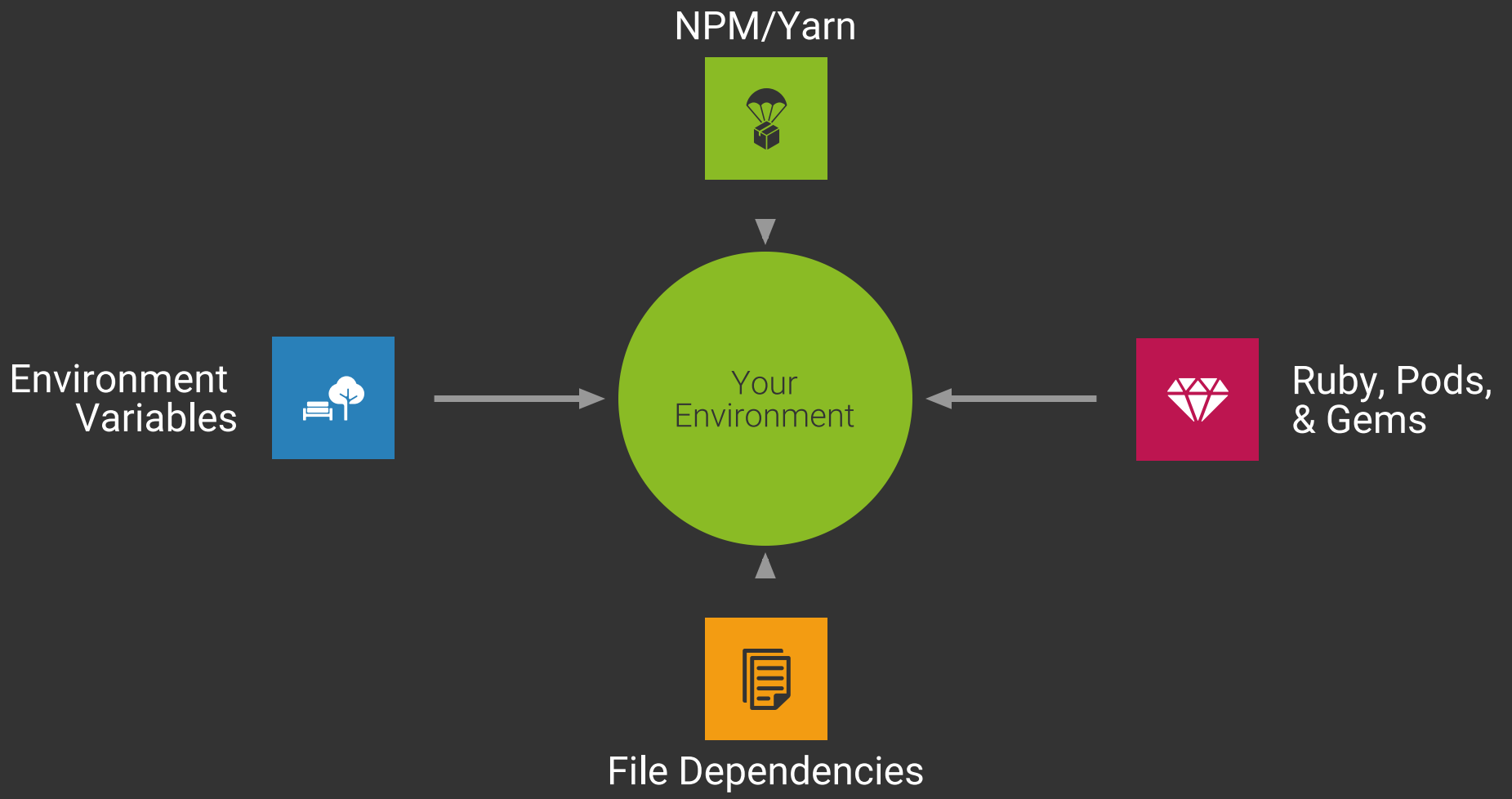
Developer Sanity

Environments can make deterministic code, nondeterministic

Story
The Last Straw

FASTLANE
MONGO
JAVA
TYPESCRIPT
SHELL
FILES
ENVIRONMENT_VARIABLES
HOMEBREW
PYTHON
JEST
TVOS
REACT-NATIVE-CLI
BROWSERS
NPM
WTF?!
YARN
COCOAPODS
ANDROID_SDK
RUBY
AVA
WATCHMAN
JASMINE
XCRUN
NODE
OS
ELIXIR
WATCHOS
EMBER-CLI
PHOENIX
SQLITE
OPTIMIZER
LINTERS
JQUERY
DETOX
POSTGRESQL
REACT_NATIVE

Not a package manager



Terrible Quiz Time

Node

Which version of Node added Async/Await?

Phoenix

Which version of Phoenix removed the top-level “web” directory?

Node Again

Which version of Node added Object spread?

Ruby

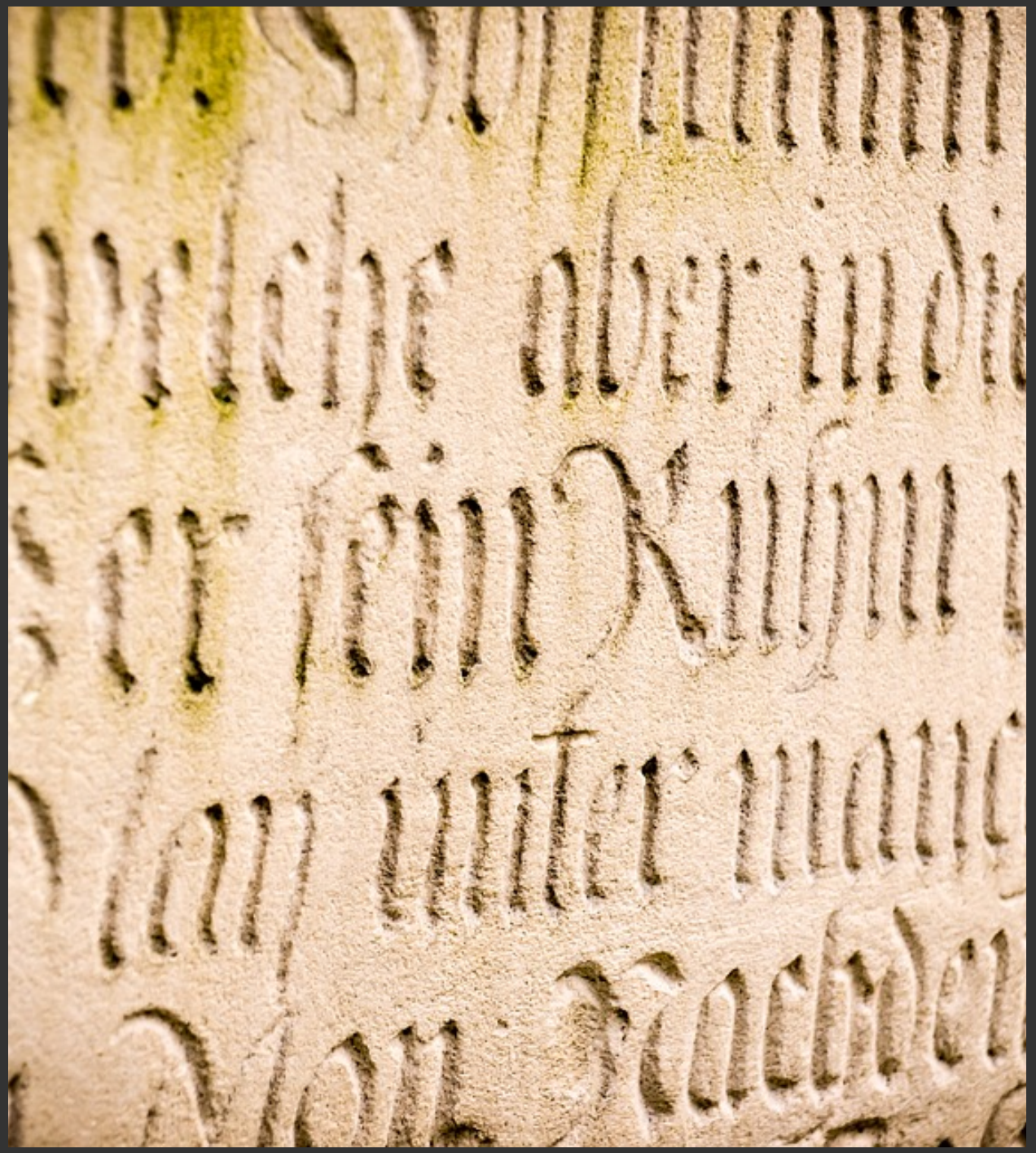
Which version of Ruby added the safe navigation operator (&.)?

NPM

Which version did `npm i` start automatically updating the package-lock.json file?

Other

Random downgrading to fix? Enforced upgrading to fix? How does a team manage all of this?



Quis custodiet ipsos custodes?

Containers?

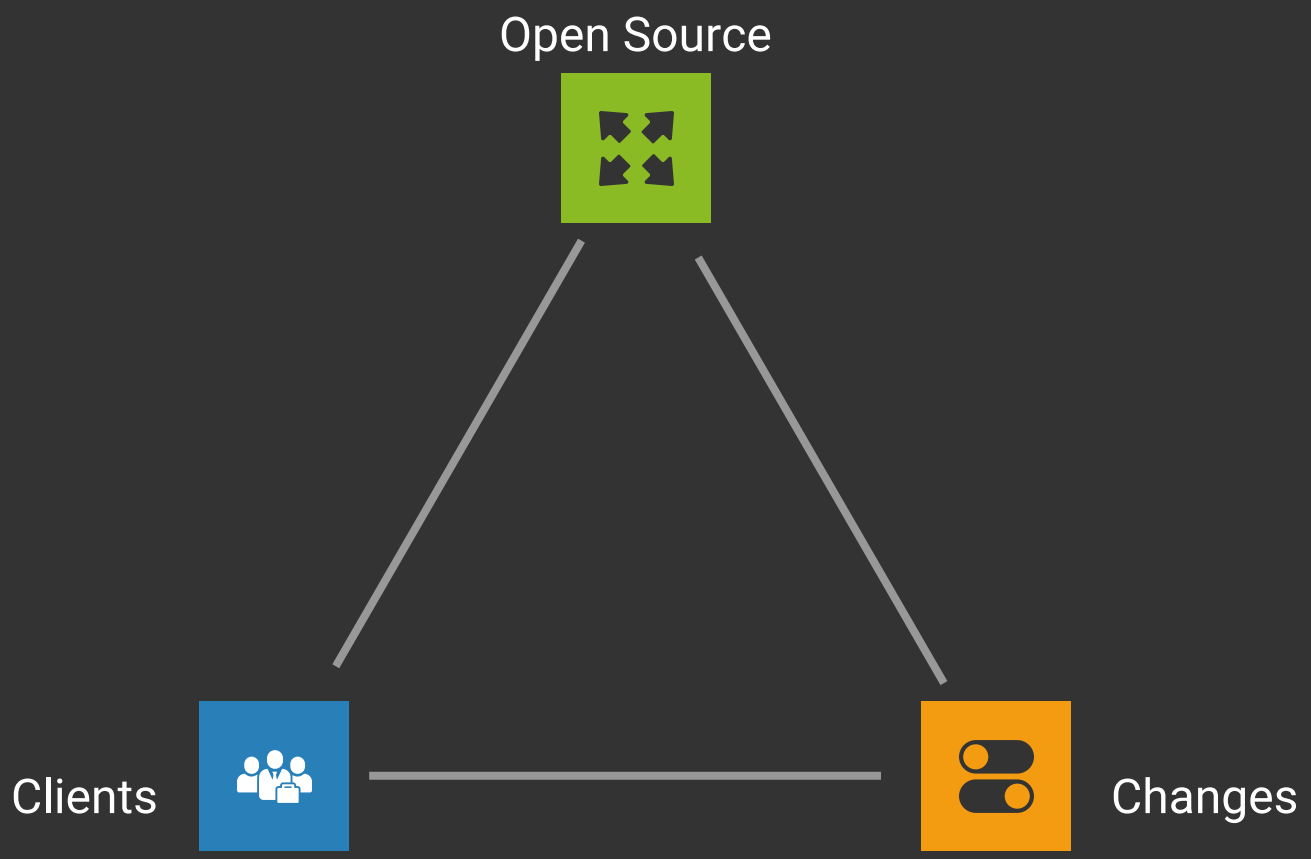
Deep Control Initiatives

Docker

Open Container Initiative

Kubernetes

Issues With Deep Control



Light Touch

Simple Small Solution

Solidarity

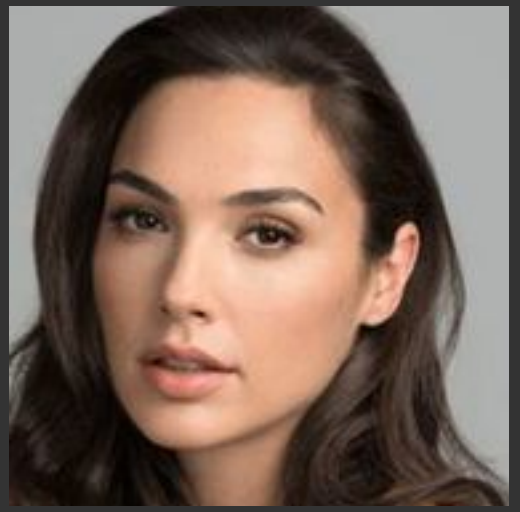
Simple for You

- Enforce CLI and Versions
- Enforce ENV Variables
- Enforce Files or Directories
- Enforce any Shell Output

Fans in Tech

“I’ve never worked on a team that didn’t need an environment checker, and I’m betting you haven’t either. Use Solidarity” - Trevor Brindle

“It’s like a meta-package manager” - Jamon Holmgren



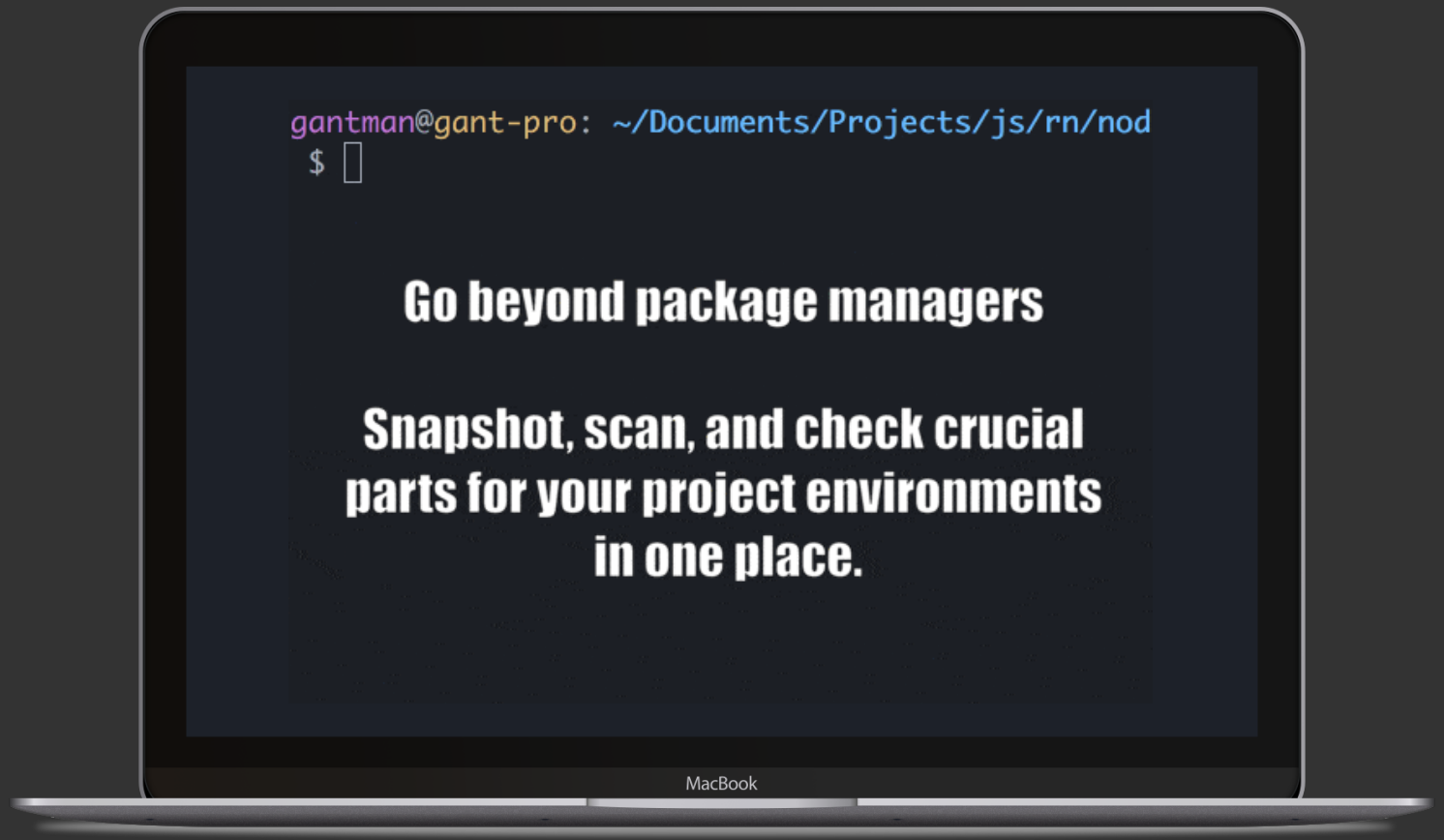
“When I joined the Justice League, Aquaman wasted days trying get up and running because of a fastlane bug. I wish we had Solidarity” - Wonder Woman

Solidarity uses Solidarity

- Enforce NPM
- Enforce Yarn >= 1
- Enforce Node >= 7.6
- Enforce TypeScript Folders

```
{
  // I'm JSON5 so I support comments
  "$schema": "./solidaritySchema.json",
  "requirements": {
    "NPM": [{ "rule": "cli", "binary": "npm" }],
    "Yarn": [{
      "rule": "cli",
      "binary": "yarn",
      "semver": "^1.0.0",
      "version": "--version"
    }],
    "Node": [{
      "rule": "cli",
      "binary": "node",
      "semver": "⩾7.6.0",
      "error": "Upgrade to latest node ⩾ 7.6 please."
    }],
    "TypeScript Active": [
      { "rule": "dir", "location": "./src", "error": "Did you get this code from npm? Try github!" },
      { "rule": "dir", "location": "./dist", "error": "You haven't compiled. Run the build script!" }
    ]
  }
}
```

Keep it Simple



- Light Touch
- Cross Platform
- Time Saving

CLI Checks

- cli
- version
- semver
- line
- platform
- error

Environment Variable Checks

- variable
- platform
- error

File/Dir Checks

- location
- platform
- error

Shell

- match
- platform
- error

Custom?

- plugin
- name
- error
- platform
- (OTHER)

What Else?

Snapshots

Snapshot CLI

```
Now loading latest environment
✔ Keep node 9.3.0
✔ Keep xcrun 36
✔ Setting react-native to '2.0.1'
✔ Setting react-native line 2 to '0.39.2'
✔ Keep code-push 2.0.1-beta
✔ Keep npm 5.7.1
✔ Keep xcodebuild 9.2
✔ Setting yarn to '1.3.2'
✔ Keep pod 1.3.1
```

```
Now loading latest environment
✔ Keep node 9.3.0
✔ Keep xcrun 36
✔ Keep react-native 2.0.1
✔ Keep react-native line 2 at 0.39.2
✔ Keep code-push 2.0.1-beta
✔ Keep npm 5.7.1
✔ Keep xcodebuild 9.2
✔ Keep yarn 1.3.2
✔ Keep pod 1.3.1
```

Simple!

Custom Rules

Snapshot CLI

reports

OLIVIER
25€

$ solidarity report [9:28:28]

⚠ Environment Report:

System

System Basics	Value
OS	macOS High Sierra 10.13.3
CPU	x64 Intel(R) Core(TM) i7-4870HQ CPU @ 2.50GHz
Report Info	3/22/2018, 9:28:38 AM (in 2.73s)

Commands

Binary	Location	Version	Desired
applesimutils	/usr/local/bin/applesimutils	0.5.12	*ANY*
yarn	/usr/local/bin/yarn	1.3.2	1.3.2
npm	/usr/local/bin/npm	5.7.1	5.7.1
code-push	/usr/local/bin/code-push	2.0.1-beta	2.0.1-beta
react-native	/usr/local/bin/react-native	0.39.2	0.39.2
react-native	/usr/local/bin/react-native	2.0.1	2.0.1
watchman	/usr/local/bin/watchman	4.7.0	*ANY*
node	/usr/local/bin/node	9.3.0	9.3.0
xcrun	/usr/bin/xcrun	36	36
detox	/usr/local/bin/detox	*UNKNOWN*	*ANY*
xcodebuild	/usr/bin/xcodebuild	9.2	9.2
pod	/Users/gantman/.rbenv/shims/pod	1.3.1	1.3.1

```
 $ solidarity report
# ⚠ Environment Report:
--------------------------------------------------------------------------------
### System

| System Basics | Value                                        |
| ------------- | -------------------------------------------- |
| OS            | macOS High Sierra 10.13.1                    |
| CPU           | x64 Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz  |
| Report Info   | 2017-12-12 11:38:43 (in 0.49s)               |


### Commands

| Binary | Location           | Version | Desired       |
| ------ | ------------------ | ------- | ------------- |
| node   | /usr/local/bin/node | 8.6.0   | >=7.6.0       |
| npm    | /usr/local/bin/npm  | 5.5.1   | *ANY*         |
| yarn   | /usr/local/bin/yarn | 1.3.2   | ^1.0.0        |


### Filesystem

| Location | Type | Exists                  |
| -------- | ---- | ----------------------- |
| ./src    | Dir  | ✔ YES                   |
| ./dist   | Dir  | ✔ YES                   |


--------------------------------------------------------------------------------
```

Easy

Write | Preview

⚠ Environment Report:

System

System Basics	Value
OS	macOS High Sierra 10.13.1
CPU	x64 Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz
Report Info	2017-12-12 11:38:43 (in 0.49s)

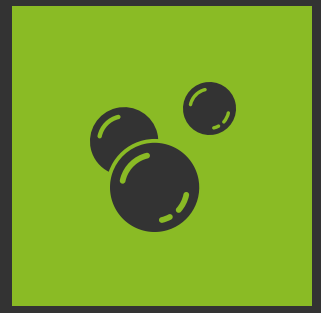
Commands

Binary	Location	Version	Desired
node	/usr/local/bin/node	8.6.0	>=7.6.0
npm	/usr/local/bin/npm	5.5.1	*ANY*
yarn	/usr/local/bin/yarn	1.3.2	^1.0.0

Filesystem

Location	Type	Exists
./src	Dir	✔ YES
./dist	Dir	✔ YES

Simple!



Custom Rules

Snapshot CLI

Reports

Next?

You

Experiment with Me?

Add to Your Project

npm i solidarity --save

create a .solidarity file full of rules

Try or Publish a Tech Plugin

npm i solidarity --save

npm i solidarity-react-native --save

npm run solidarity snapshot

Write a Cool Plugin

A plugin to give cool new rules?

Checking Licenses?

Creating Cool New Reports?

Give Feedback

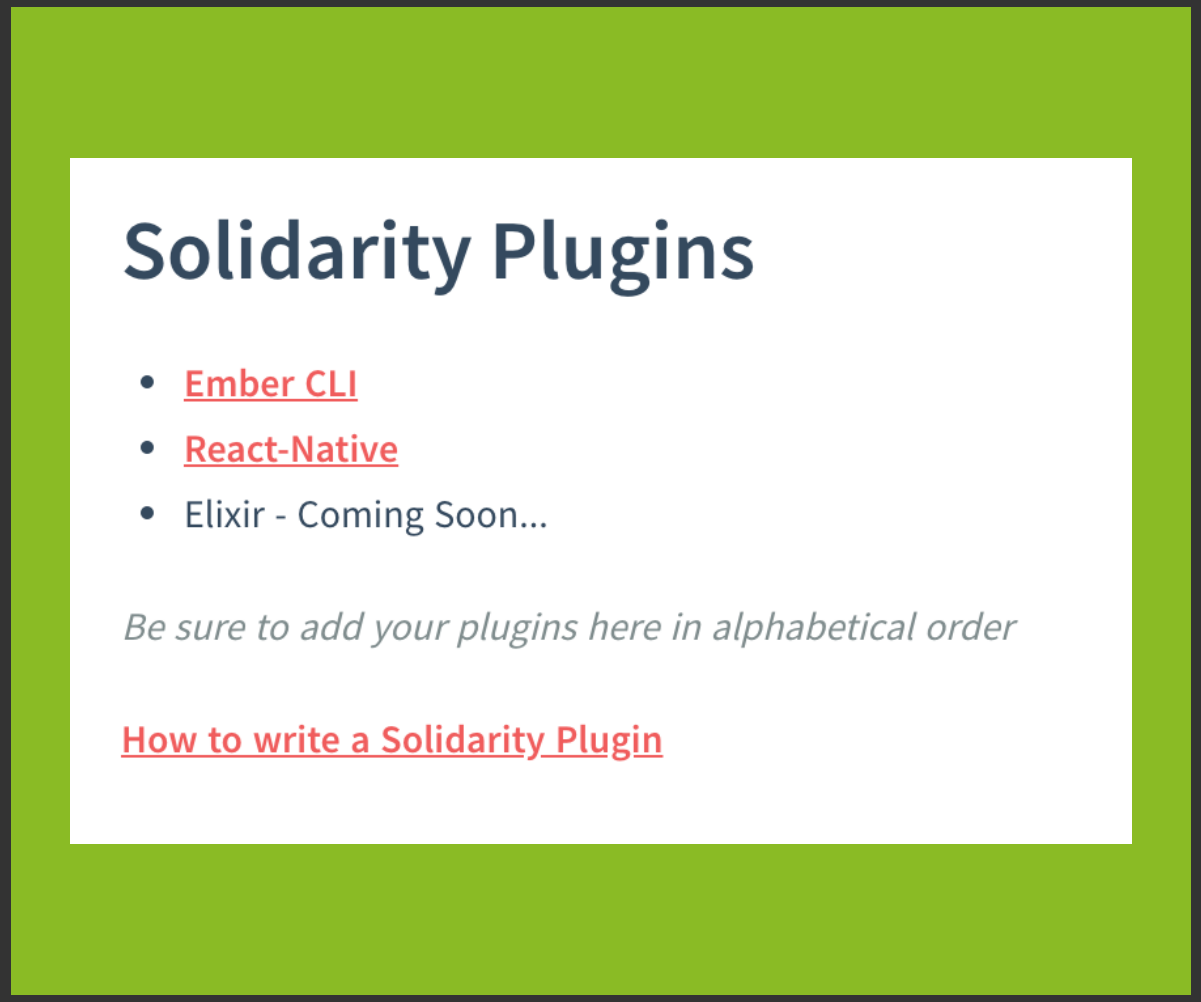
I would not need this but <3

Hey, I love this! Features plz!

Solidarity Plugins

How to “Next Step” with Solidarity

Tech Plugins



You already know the parts for your tech stack

Why copypasta?

Tech Plugins

Tech Plugins

Custom Plugin Powers

Create your own rule

Control how to snapshot

Control how to report

```
gantman@Gant-Pro: ~
 $ solidarity create plugin
? Plugin name? (we will add the namespacing for you)
```

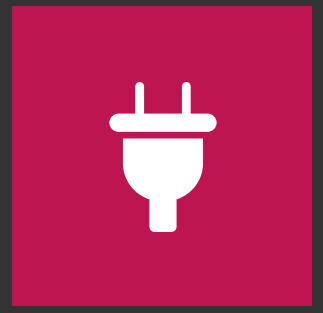
Answer basic questions

Simple!

Custom Rules

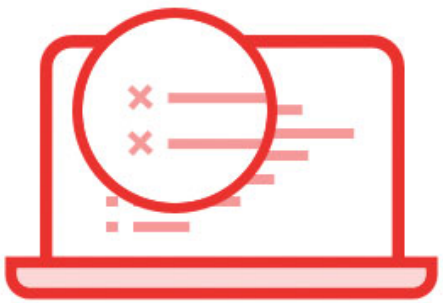
Snapshot CLI

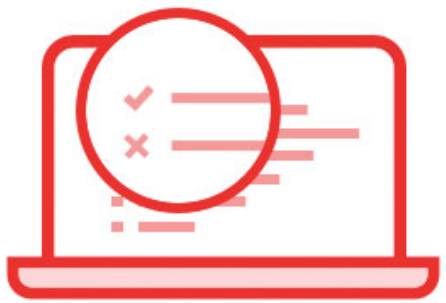
Reports



Plugins

solidarity





Gant Laborde

Kevin VanGelder

Matt Thompson

Steve Kellock

Timo Sand

AJ Robertson

Joko Susilo

Campion Fellin

Sia

dduncan

Brandon Dean

Grigori

Imran Brown

Nicolas Charpentier

Will Raxworthy

Markus Mikonsaari

Bnaya Peretz

Christian Johannessen

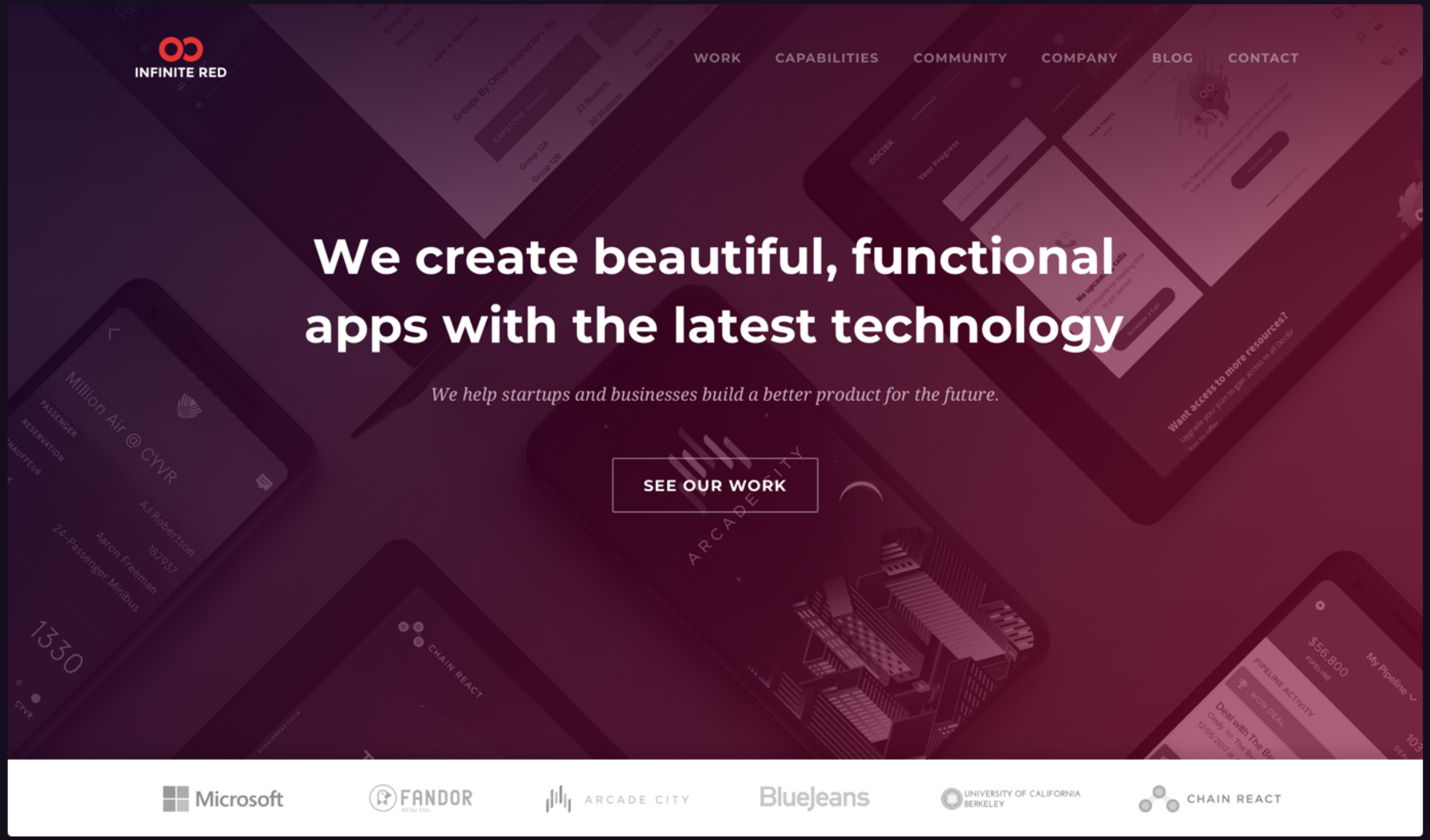
Jenna Fucci

Trevor Brindle

Morgan

Jamon Holmgren

Patrick Kempff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WORK
CAPABILITIES
COMMUNITY
COMPANY
BLOG
CONTACT
We create beautiful, functional apps with the latest technology
We help startups and businesses build a better product for the future.
SEE OUR WORK
Microsoft
FANDOR
ARCADE CITY
BlueJeans
UNIVERSITY OF CALIFORNIA BERKELEY
CHAIN REACT

Gant Laborde

Chief Technology Strategist at
Infinite Red

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@gantlaborde

Slides: https://bit.ly/2GWeufy