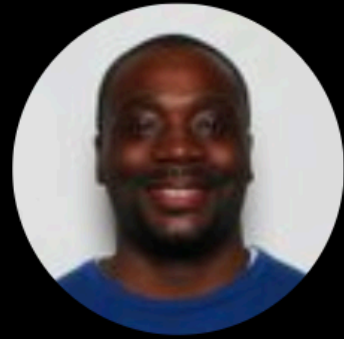


Optimizing your OSS Infrastructure with Nx Plugins



Brandon Roberts

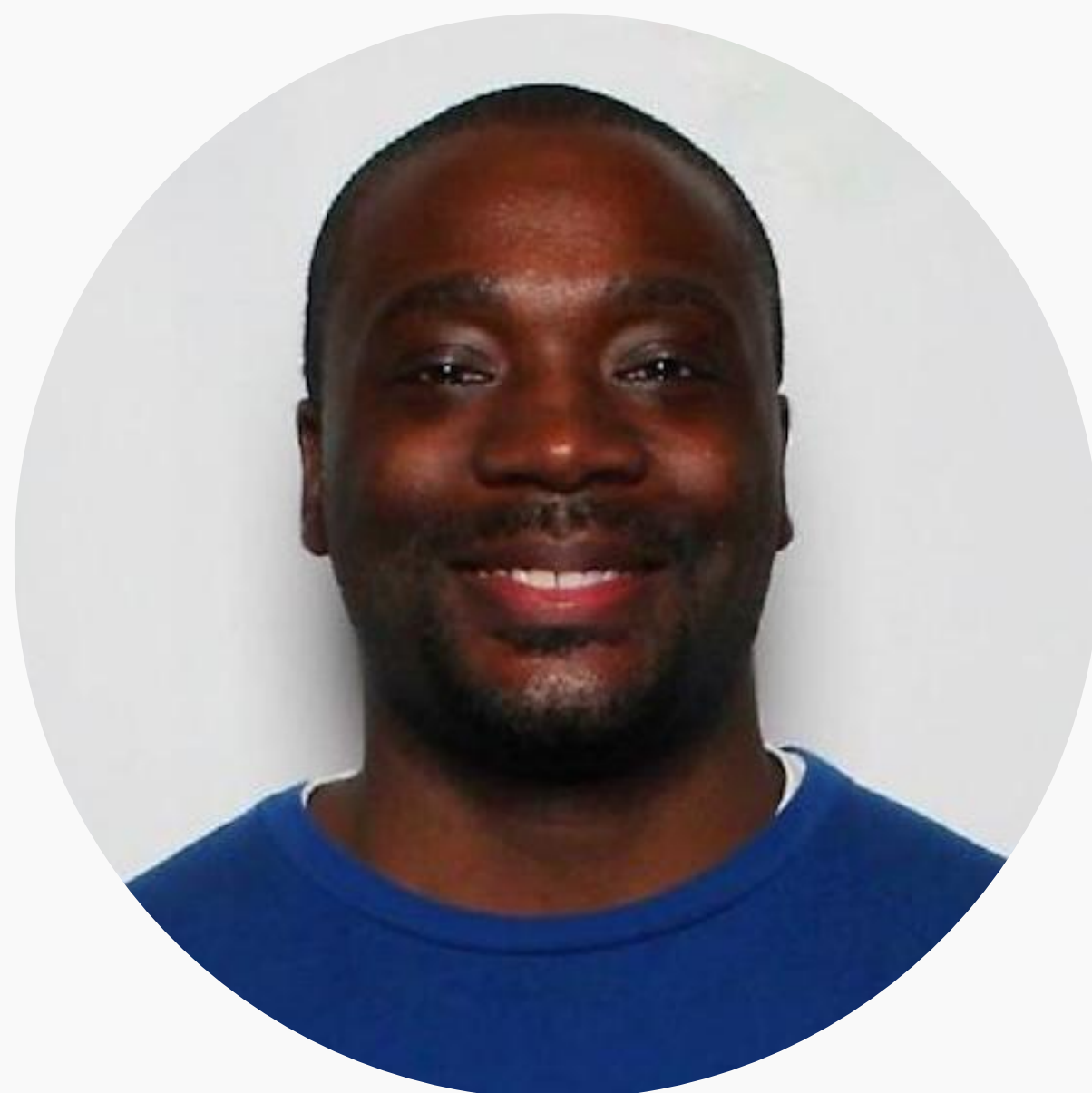
@brandontroberts



Not-so random thought. Nx is already great for monorepos, but it would have been a 🔥 name for a next-generation Angular framework also. 🤔

#JustSaying #CarryOn

9:52 AM · Dec 16, 2021



@brandontroberts

youtube.com/@BrandonRobertsDev

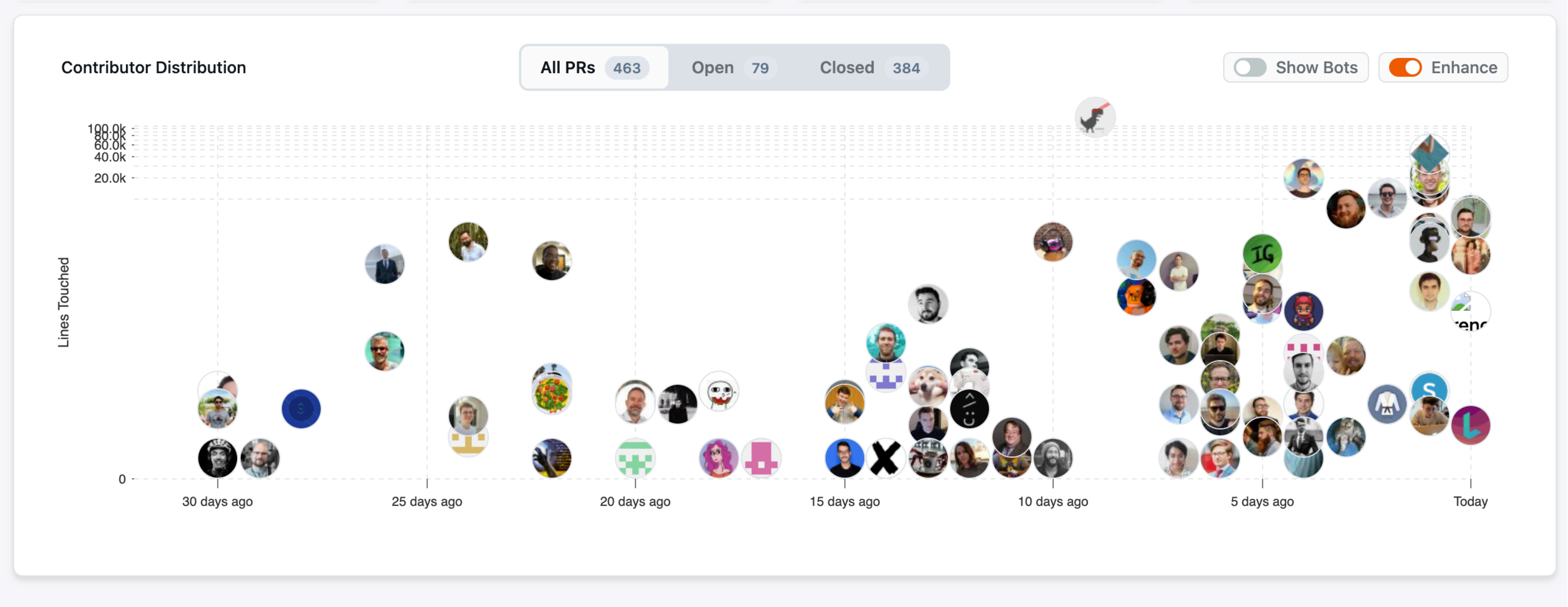
Creator of AnalogJS

NgRx Maintainer

Google Developer Expert

Engineering Lead @ OpenSauced

insights.opensauced.pizza/nx



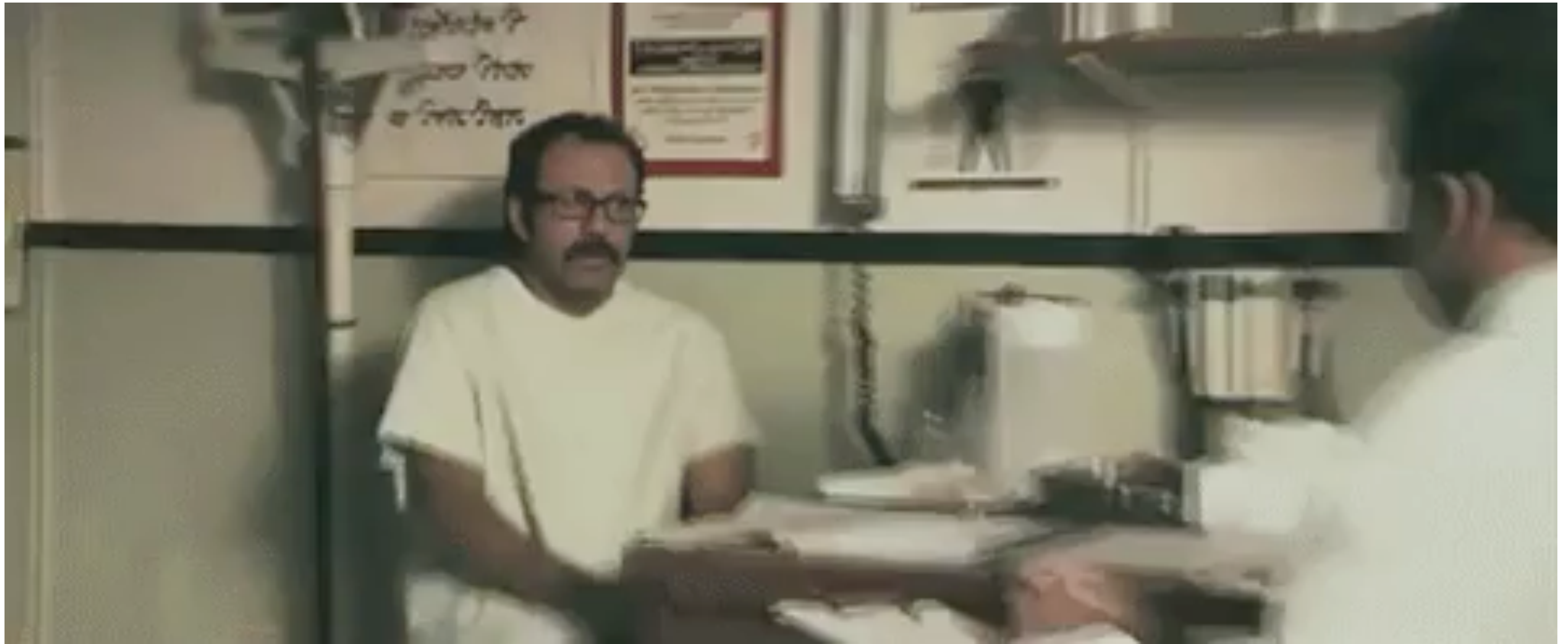
Agenda

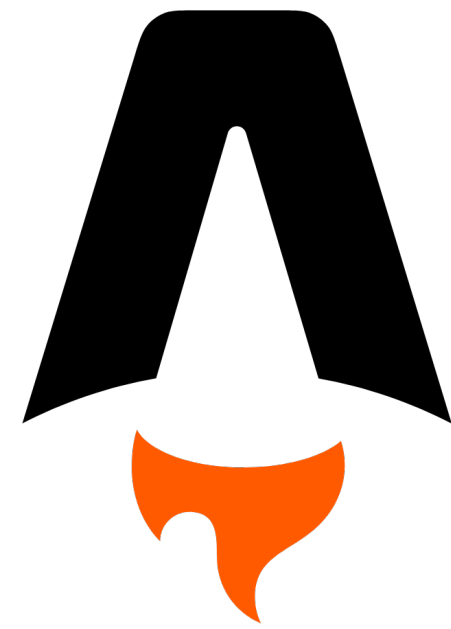
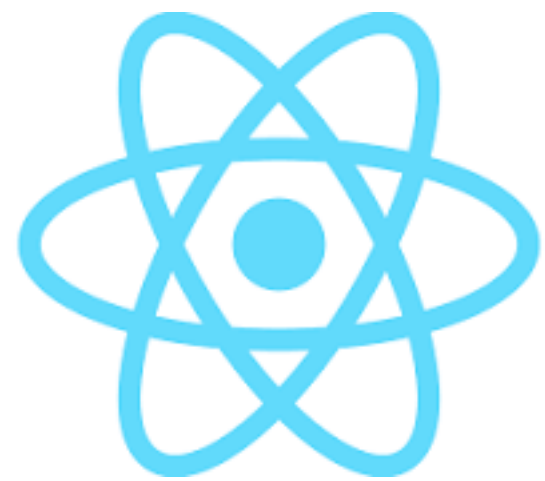
- Analog
- Nx Plugin

Analog

Analog is an Nx Plugin

(also)





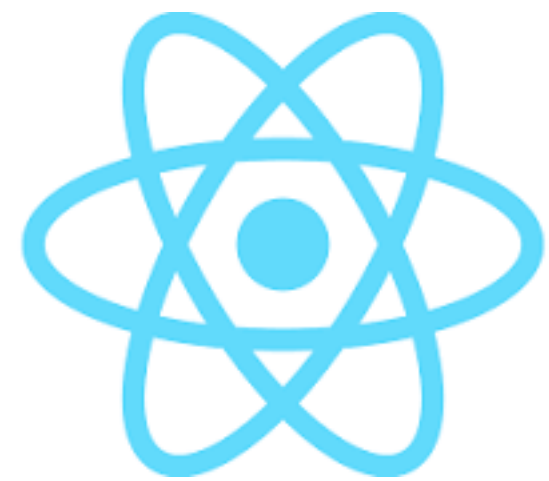
astro



Qwik



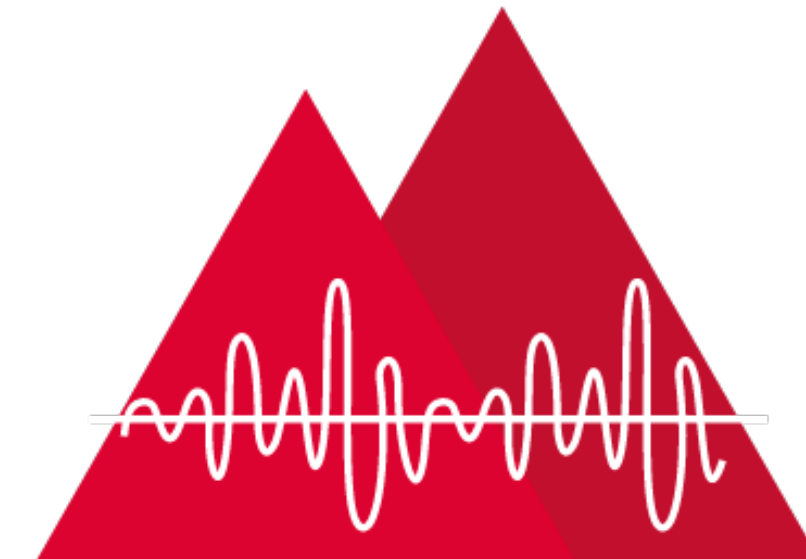




astro



Qwik



Analog

“How did we get here?”

Angular

- Building blocks
- Standalone Components
- esbuild
- ESM
- SSR



Analog / Vite

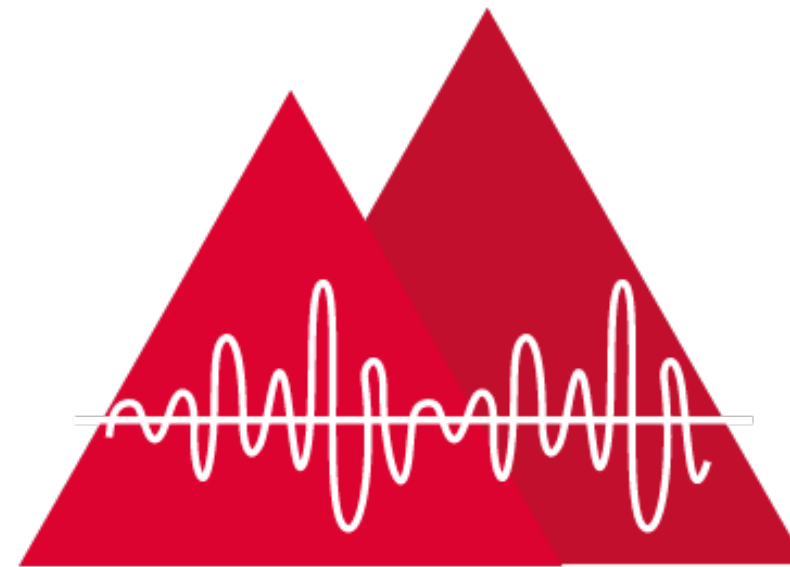
- Vite Plugin for Angular compilation
- Dynamic Imports
- Markdown
- Filesystem-based routing
- Markdown Plugin



Nitro

- Server Rendering
- Prerendering
- Deployment Targets
- API routes
- Extensibility





Nx

- Monorepo
- Plugin
- Angular schematics/builders



Analog Features

- Filesystem-based routing
- Server-side rendering
- Static Site Generation
- API Routes
- Server-only data fetching

Nx Plugins

Nx Plugins

“What is an Nx Plugin?”

Nx Plugin

- Generators
- Executors
- Automated Migrations
- Presets
- Locally/Published



Nx Plugins

main

+

Q

Q Go to file

t

> .githubhooks

> .github

> .vscode

> apps

> libs

> packages

> astro-angular

> content

> create-analog

> nx-plugin

> platform

> router

> trpc

> vite-plugin-angular

> vite-plugin-nitro

.gitkeep

brandonroberts chore: release 0.2.9 ✓

| Name | Last commit message |
|---------------------|------------------------------------------------|
| .. | |
| astro-angular | chore: release 0.2.9 |
| content | chore: release 0.2.9 |
| create-analog | chore: release 0.2.8 |
| nx-plugin | feat(content): ContentRenderer is able to retu |
| platform | chore: release 0.2.9 |
| router | chore: release 0.2.9 |
| trpc | chore: release 0.2.9 |
| vite-plugin-angular | chore: release 0.2.9 |
| vite-plugin-nitro | chore: release 0.2.9 |
| .gitkeep | refactor: rename libs directory to packages |

Nx Plugins

```
nx g @nx/plugin:plugin my-plugin
```


Nx Plugin

- Generators
- Scaffolding
- Applications
- Libraries
- Code



Nx Plugins

```
nx g @analogjs/platform:app my-app
```

Analog File-System Based Router

Files:

```
src/app/pages
├── (auth)
│   ├── login.page.ts
│   └── signup.page.ts
├── (profile)
│   ├── about.md
│   └── contact.md
├── posts
│   ├── (post-list).page.ts
│   ├── [slug].edit.page.ts
│   └── [slug].page.ts
├── (auth).page.ts
├── (home).page.ts
├── [...not-found].md
└── posts.page.ts
```

Routes:

| Example URL | Page |
|---------------|----------------------------------------------------|
| / | (home).page.ts |
| /about | (profile)/about.md |
| /contact | (profile)/contact.md |
| /login | (auth)/login.page.ts (layout: (auth).page.ts) |
| /signup | (auth)/signup.page.ts (layout: (auth).page.ts) |
| /posts | posts/(post-list).page.ts (layout: posts.page.ts) |
| /posts/1 | posts/[slug].page.ts (layout: posts.page.ts) |
| /posts/1/edit | posts/[slug].edit.page.ts (layout: posts.page.ts) |
| /unknown-url | [...not-found].md |

Nx Plugins

```
nx g @analogjs/platform:page 'blog.[slug]'
```

Nx Plugins - Generator

```
import { Tree, formatFiles, installPackagesTask } from '@nx/devkit';
import { appGenerator } from './my-plugin';

export default async function (tree: Tree, schema: any) {
  await appGenerator(tree, { name: schema.name });
  await formatFiles(tree);
  return () => {
    installPackagesTask(tree);
  };
}
```


Nx Plugin

- Executors
- Running Tasks
 - Platform-agnostic
 - Webpack
 - Vite
 - esbuild
 - Rollup
 - Bun
- Consistency



Nx Plugins - Executor

```
import type { ExecutorContext } from '@nx/devkit';
import { exec } from 'child_process';
import { promisify } from 'util';

export interface EchoExecutorOptions {
  textToEcho: string;
}

export default async function analogExecutor(
  options: EchoExecutorOptions,
  context: ExecutorContext
): Promise<{ success: boolean }> {
  console.info(`Executing "echo"...`);
  console.info(`Options: ${JSON.stringify(options, null, 2)}`);

  const { stdout, stderr } = await promisify(exec)(
    `echo ${options.textToEcho}`
  );
  console.log(stdout);
  console.error(stderr);

  const success = !stderr;
  return { success };
}
```

Nx Plugins

`nx serve my-app`

Nx Plugins

nx build platform

Nx Plugin - Migrations

- Upgrade users to the latest version
- Upgrade dependencies
- Create/Modify code



Nx Plugin - Migrations

```
{
  "packageJsonUpdates": {
    "0.2.8": {
      "version": "0.2.7",
      "description": "Updates marked-gfm-heading-id to support T0Cs generation",
      "packages": {
        "marked-gfm-heading-id": {
          "version": "^3.1.0",
          "alwaysAddToPackageJson": true
        }
      }
    }
  }
}
```

Nx Plugins

```
nx migrate @analogjs/platform@latest
```

Nx Plugin - Preset

- Generate Nx with Analog



Nx Plugins

```
create-nx-workspace my-workspace --preset @analogjs/platform
```

Nx Monorepo

- Nx affected
- Nx Graph
- Nx migrate
- Nx Cloud free for OSS





Ecosystems



Nx Plugin

- create-package
- create-your-app CLI



analogjs.org

Team Members



Robin Goetz

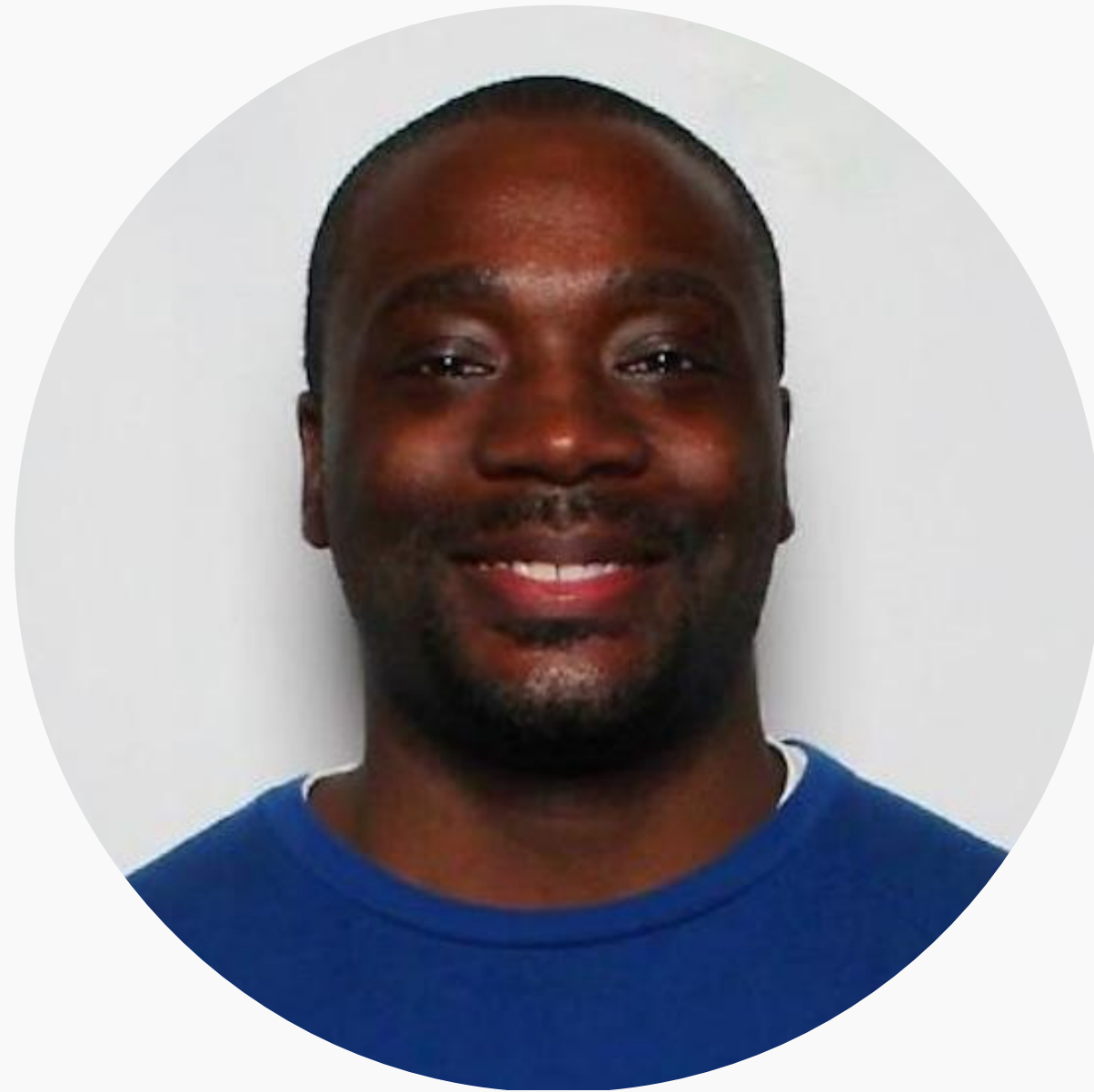


Marko Stanimirović

github.com/analogjs/analog

Recap

- Analog
- Nx Plugin



@brandontroberts

Thank You!