

*af*

# Anthony Fu

Core team member of Nuxt, Vue, and Vite.

Creator of VueUse, Slidev, Vitest, UnoCSS.

Working at NuxtLabs.

 antfu.me

 antfu

 antfu@webtoo.ls

 antfu7



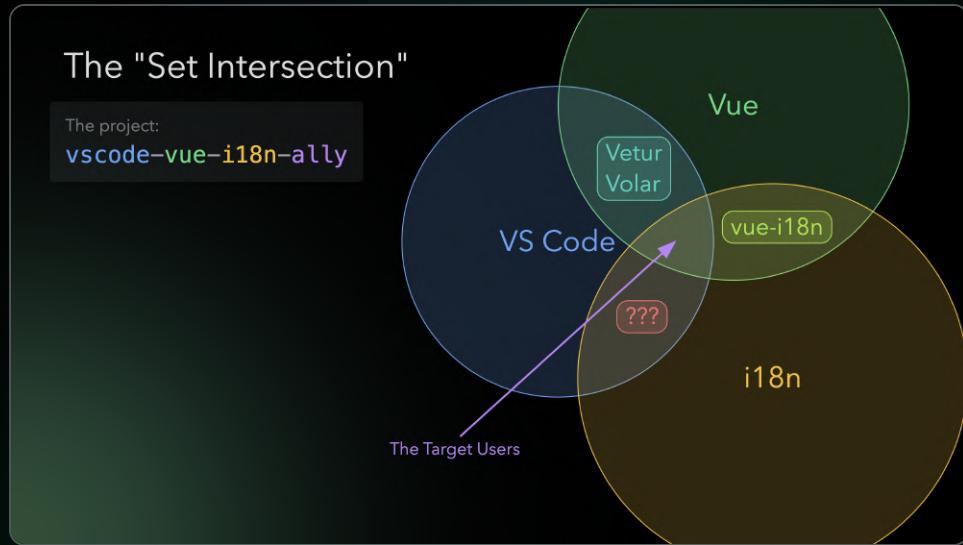
Anthony's Roads to Open Source <sup>2/n</sup>

# The Progressive Path

Vue Amsterdam  
Feb. 29th 2024

Previous Episode

# The Set Theory



Recordings on [antfu.me](https://antfu.me)

# What is a Tool?

A tool should help you get things done *faster* and/or easier

# What Makes a Good Tool?

*General & Useful*



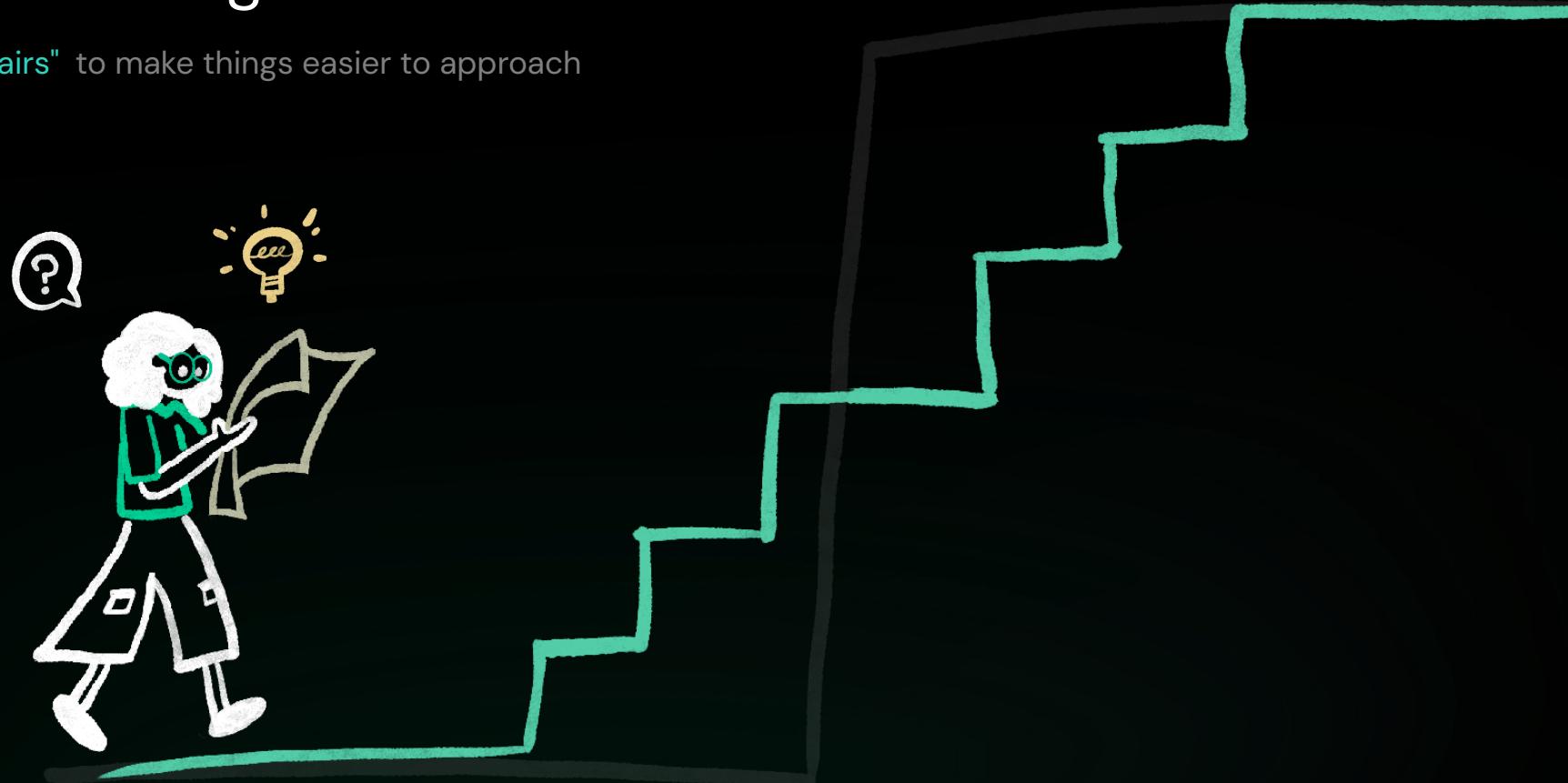
# Make things *Easier!*

## ❖ Cost of Using a Tool

- Q Cost of Discovering → Common needs, easy to find
- ⚒ Cost of Learning → Easy to understand and get started
- ₩ Price → Usually free in Open Source! ❤️
- 💻 Cost of Adoption → Provide integrations, extensibility

# What is Progressive?

The "Stairs" to make things easier to approach





# The Progressive JavaScript Framework

"A framework that can grow with you and adapt to your needs."

<https://vuejs.org>

# Progressive on Integrations

Vue offers multiple ways to use, for different level of integrations:

- CDN without build tools
- As Web Components
- Single-page application (SPA)
- Static site generation (SSG)
- Server-side rendering (SSR)
- Native targeting
- Vue Vapor Mode *Coming soon*

# Levels of Integrations

Cover different scenarios, coexist with other techs, *easy to adopt*



# The Intuitive Vue Framework

"To make web development intuitive and performant with a great Developer Experience"

<https://nuxt.com>

# Progressive on Onboarding

This is **all you need** to start with Nuxt:

## package.json

```
{  
  "scripts": {  
    "dev": "nuxt dev",  
    "build": "nuxt build",  
  },  
  "devDependencies": {  
    "nuxt": "^3.10.0"  
  }  
}
```

## app.vue

```
<script setup>  
const msg = ref('Hello, Nuxt!')  
</script>  
  
<template>  
  <h1>{{ msg }}</h1>  
</template>
```

**Intuitive** - Minimal knowledge required, and easy to discover new features

# Progressive on Features

Starts **minimal** and **grows** with users:

- ⌚ **Have some components?** Put them in `components/` and use anywhere
- ➡ **Need routing?** Create a `pages/` directory and Vue router is set up for you.
- ⟳ **Deploy your site?** It **Just works™** with zero-config powered by  Nitro
- ☁️ **Need some server logic?** Create a `server/api/` directory to make serverless endpoints.
- ts **Want TypeScript?** Oh, you can just use it!
- chrome **PWA, SEO, i18n, RSS, etc?** We have great modules ecosystem to use in a few clicks.
- robot **Curious about more?** We have  Nuxt DevTools to inspect and analyze the internals

# Nuxt DevTools

Help features discovery  
and understanding

The screenshot shows the Nuxt DevTools sidebar on the left and a grid of 10 recommended modules on the right.

**DevTools Sidebar:**

- ui
- image
- plausible
- fontaine
- google-fonts
- turnstile
- studio
- vueuse

**ui**  
Fully styled and customizable components for Nuxt, powered by...

**image**  
Optimised images for Nuxt, with progressive processing, lazy-loading,...

**plausible**  
Nuxt module to natively integrate Plausible analytics

**fontaine**  
Automatically optimized font fallback based on font metrics

**google-fonts**  
Google Fonts module for Nuxt

**turnstile**  
Privacy-focused alternative to CAPTCHA from Cloudflare

**studio**  
A new experience to build content-driven website with Nuxt.

**vueuse**  
Collection of essential Vue Composition Utilities for Vue 2 and 3

The screenshot shows the Nuxt Tutorial website. The top navigation bar includes the Nuxt logo, a search icon, and a 'Working in Progress' button. The left sidebar has a 'Guide' section with 'Welcome to Nuxt Tutorial!', 'Vue Basics', and 'Nuxt Concepts'. Below it is a text block about Nuxt's features. The main content area features a section titled 'Getting Started' with text about basic concepts and a 'Preview' section with code and a preview window.

## Getting Started

With this tutorial, we assume you are already familiar with the basic concept of HTML, CSS, JavaScript. Nuxt is a full-stack framework built on top of [Vue](#), we also include a simple Vue tutorial to help you get started quickly.

Start learning by click the topics below:

**Vue Basics**  
If you are not familiar with Vue, we recommend you to learn the basics of Vue first.

**Nuxt Concepts**  
If you are not familiar with Nuxt, we recommend you to learn the basics of Vue first.

## Case Studies

Once you are already familiar the concepts of Vue and Nuxt, we provided some case studies to help you understand how to use Nuxt in real-world applications:

**GitHub Profile** Coming Soon  
Build an website to generate custom user

**ECommerce** Coming Soon  
Build a basic ECommerce site with product

## Welcome to Nuxt Tutorial!

**app.vue**

```
1 <script setup lang="ts">
2 const msg = 'Welcome to Nuxt Tutorial!'
3 </script>
4
5 <template>
6 | <h1>{{ msg }}</h1>
7 </template>
8
```

Show solution

Preview

# Nuxt Tutorial

Help onboarding  
and learning

# Grow with Users

Expose concepts & powers *progressively*



# Next Generation Frontend Tooling

"We work closely with projects in the ecosystem to minimize regressions on each release"

<https://vitejs.dev>



**moonrepo**

@tothemoonrepo · [Follow](#)



Congrats to Vite on the examples repo with new examples! [github.com/moonrepo/vite-examples](https://github.com/moonrepo/vite-examples)



**Vite** ⚡ @vite\_js

⚡ Vite 3 is out!

The Vite Team, working closely with the community, is happy to announce the next major release involved in making this release even better. [vitejs.dev/blog/announcing-vite-3.0](https://vitejs.dev/blog/announcing-vite-3.0)

7:08 PM · Jul 13, 2022



17



[Reply](#)



4:41 PM · Nov 16, 2023



**Kilian Valkhof** ✅

@kilianvalkhof · [Follow](#)

Most painless full-version upgrade of a build system ever.



**Vite** ⚡ @vite\_js

⚡ Vite 5 is out!

Performance improvements, big cleanups, and new features preparing the ground for even more innovation from the ecosystem! [vitejs.dev/blog/announcing-vite-5.0](https://vitejs.dev/blog/announcing-vite-5.0)



11



[Reply](#)



[Copy link to post](#)

[Read more on X](#)

# A Typical Vite Plugin

package.json

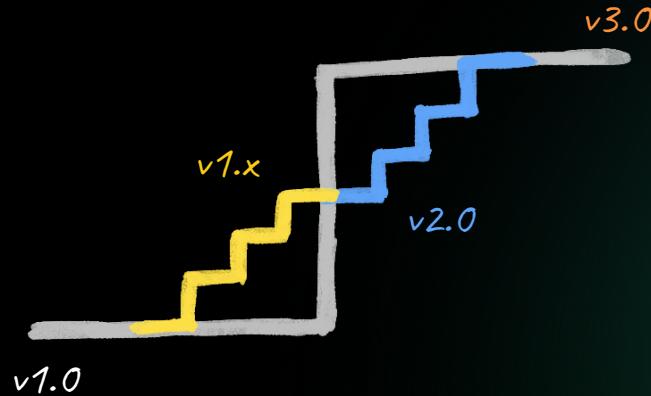
```
{  
  // ...  
  "peerDependencies": {  
    "vite": "^2.9.0 || ^3.0.0 || ^4.0.0 || ^5.0.0"  
  },  
}
```

The plugin keeps working from Vite 2 to Vite 5

↗  
*3 years in between!*

# Progressive on Breaking Changes

Two ways of make breaking changes easier



## ↗ Backward Compatibility

- Compatible with the **previous** versions
- Deprecate first, print warnings, remove later
- (e.g. `@vue/compat`, `@nuxt/kit`)

## ↗ Forward Compatibility

- Compatible with the **future** versions
- Introduce the `experimental` or `future` flags
- Make future behavior opt-in today
- (e.g. `@vue/composition-api`, `vue v2.7`, `Nuxt Bridge`)

# Allow Coexistence

Provide "middle stages" for migration, coexist of legacy & new

# Recap

Progressive on  **Onboarding**

- ↪ Making it easy to understand and get started

Progressive on  **Integrations**

- ↪ Fits in different scenarios, easy to adopt

Progressive on  **Features**

- ↪ Starts minimal and grows with users

Progressive on  **Breaking Changes**

- ↪ Provide middle stages for migration

# Progressive Paths

Enables users the capability of "**Divide and Conquer**"

# Thank you!

Slides on [antfu.me](http://antfu.me)