{shiny.tictoc} measuring Shiny performance, without the headaches

Appsilon

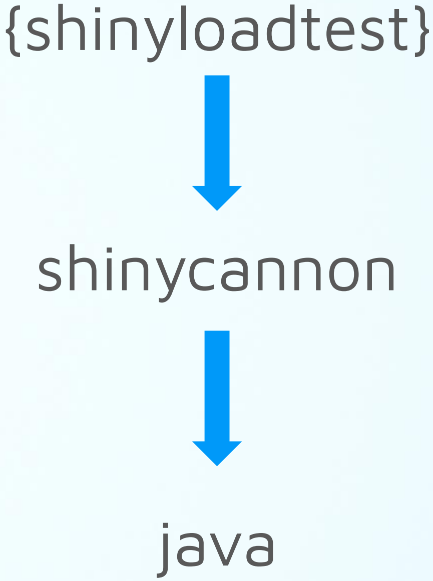
John

Jane

Alex

Photo by Krzysztof Niewolny on Unsplash

John



{shinyloadtest}

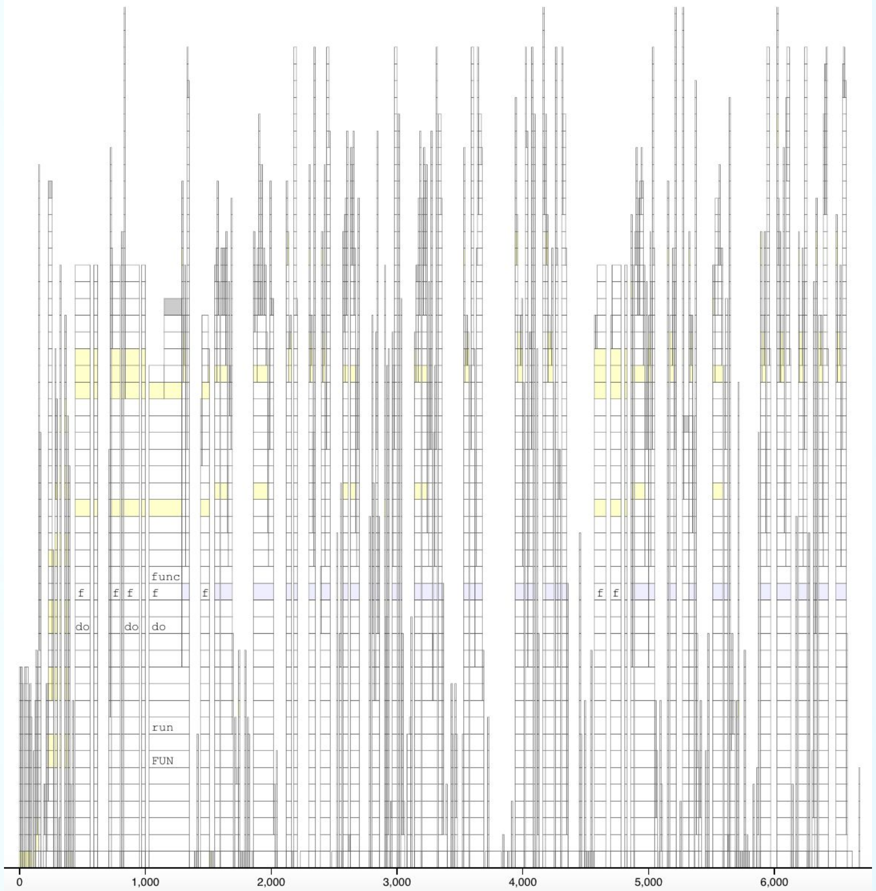
shinycannon

java

Photo by Muhammad Zaqy Al Fattah on Unsplash

{profvis}

Jane



Alex

{profvis}

{shinyloadtest}

Photo by Markus Winkler on Unsplash

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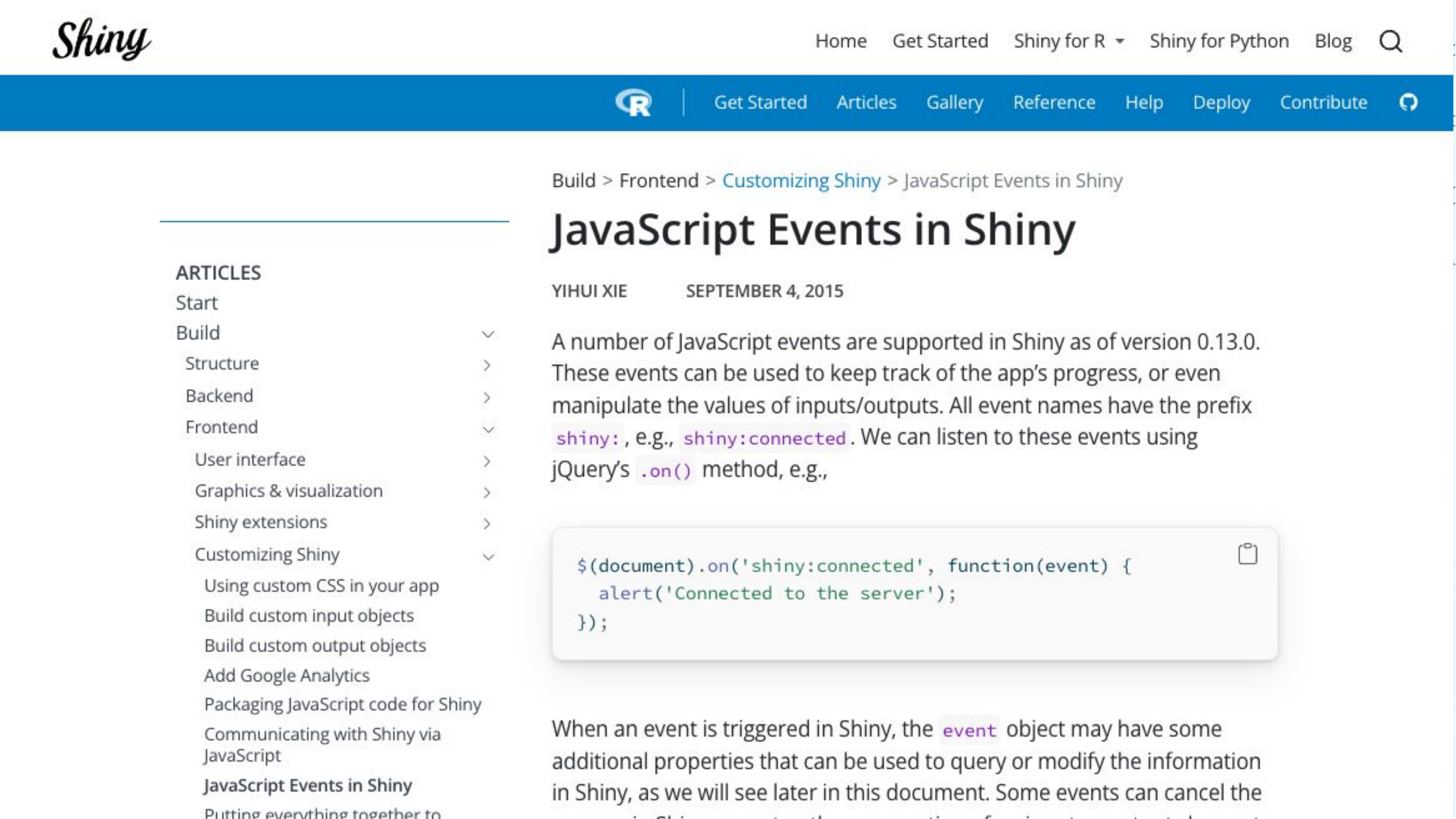

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Putting everything together to

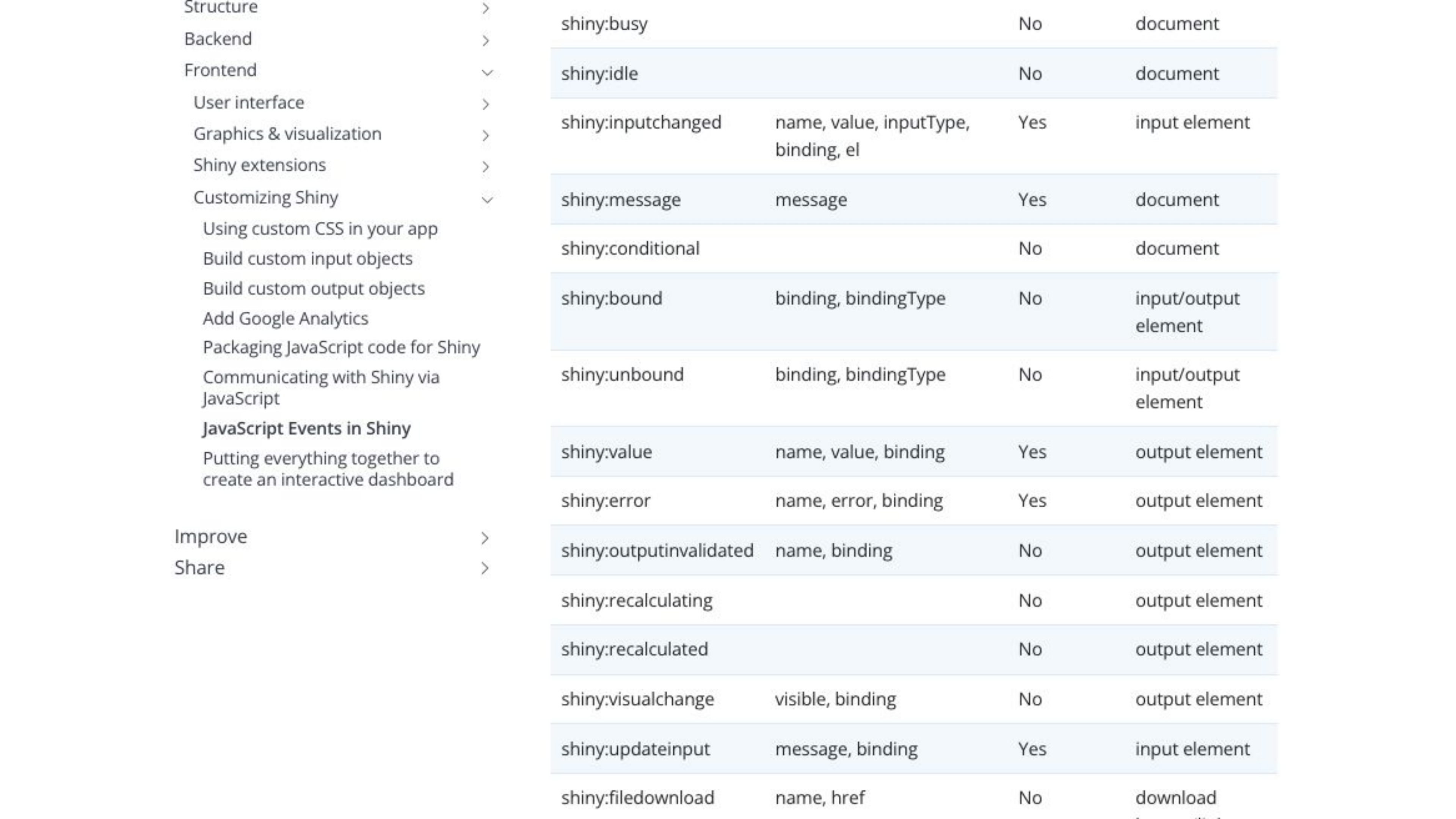
JavaScript Events in Shiny

YIHUI XIE SEPTEMBER 4, 2015

A number of JavaScript events are supported in Shiny as of version 0.13.0. These events can be used to keep track of the app's progress, or even manipulate the values of inputs/outputs. All event names have the prefix `shiny:`, e.g., `shiny:connected`. We can listen to these events using jQuery's `.on()` method, e.g.,

```
$(document).on('shiny:connected', function(event) {
  alert('Connected to the server');
});
```

When an event is triggered in Shiny, the `event` object may have some additional properties that can be used to query or modify the information in Shiny, as we will see later in this document. Some events can cancel the



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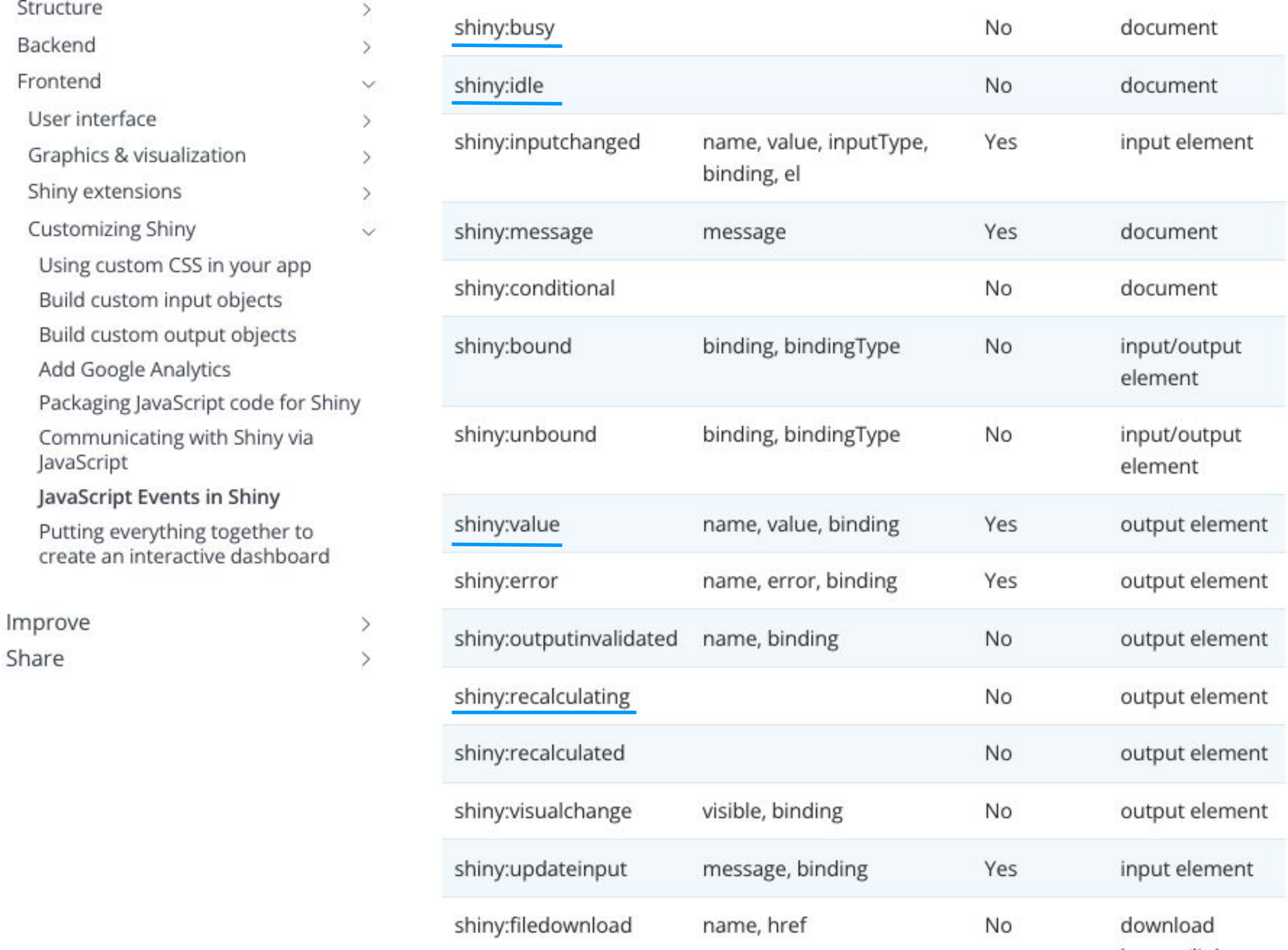
Improve
Share

shiny:busy		No	document
shiny:idle		No	document
shiny:inputchanged	name, value, inputType, binding, el	Yes	input element
shiny:message	message	Yes	document
shiny:conditional		No	document
shiny:bound	binding, bindingType	No	input/output element
shiny:unbound	binding, bindingType	No	input/output element
shiny:value	name, value, binding	Yes	output element
shiny:error	name, error, binding	Yes	output element
shiny:outputinvalidated	name, binding	No	output element
shiny:recalculating		No	output element
shiny:recalculated		No	output element
shiny:visualchange	visible, binding	No	output element
shiny:updateinput	message, binding	Yes	input element
shiny:filedownload	name, href	No	download



- Structure
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Demo

{shiny.tictoc} - setup

```
tags$script(
 src = "https://cdn.jsdelivr.net/gh/Appsilon/shiny.tictoc@v0.2.0/shiny-tic-toc.min.js"
)
```

{shiny.tictoc} - usage

```
showAllMeasurements()
```

```
exportMeasurements()
```

```
showSummarisedMeasurements()
```

```
await exportHtmlReport()
```

{shiny.tictoc}

{profvis}

{shinyloadtest}

{shiny.benchmark}

Try {shiny.tictoc} for

- Easy Setup and Usage
- Actionable Numbers
- Full Performance Picture

“That was super easy! I didn’t have to install anything!”

“Fantastic in terms of ease of use! Very easy to get started!”

“It was very easy and very fast!”

“It’s so easy! We must use that!”

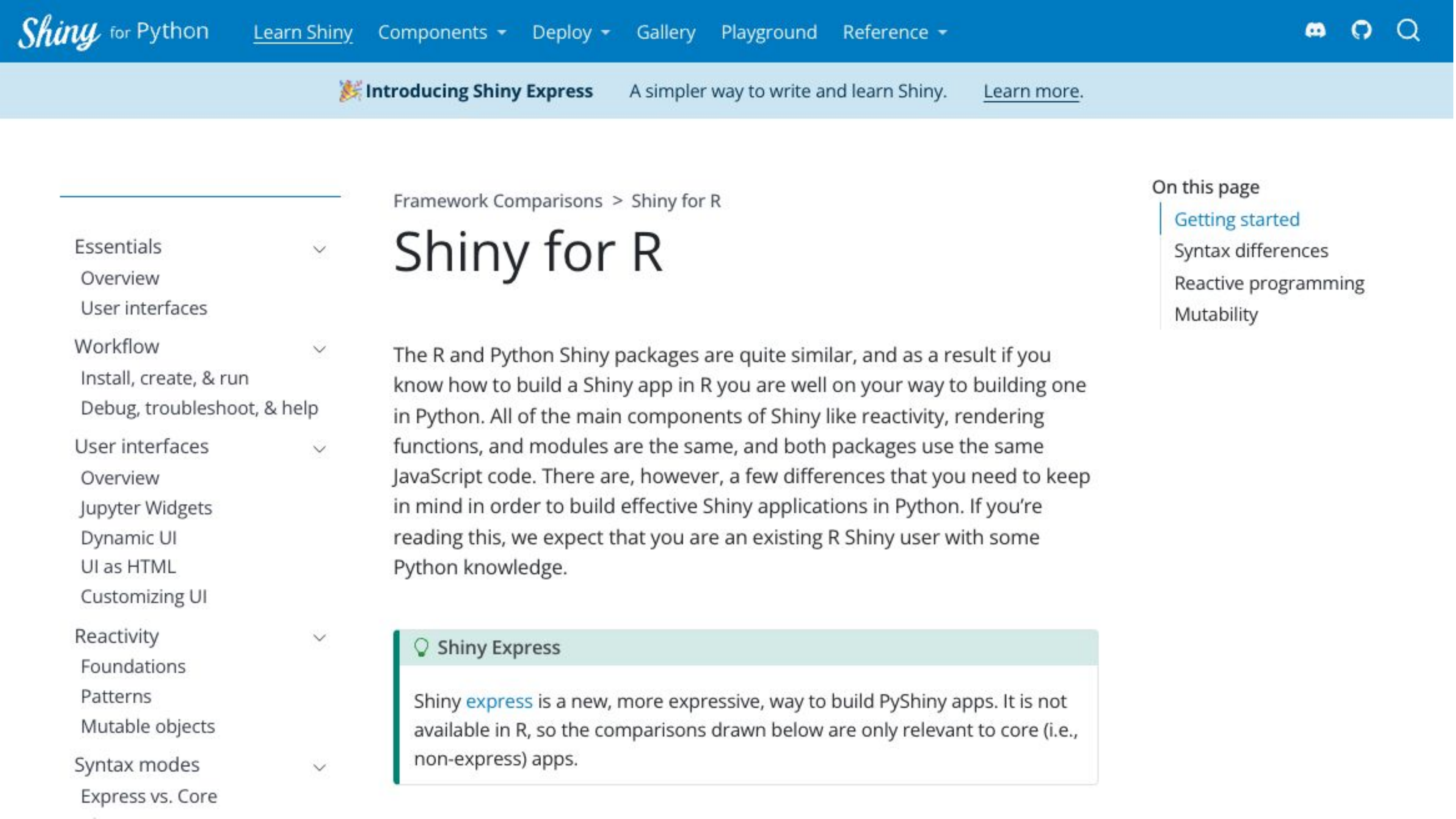
“I would use it right away!”

Photo by Stanislav on Unsplash

<5 minutes to first benchmark

Photo by Todd Quackenbush on Unsplash

Shiny for Python?



🎉 **Introducing Shiny Express** A simpler way to write and learn Shiny. Learn more.

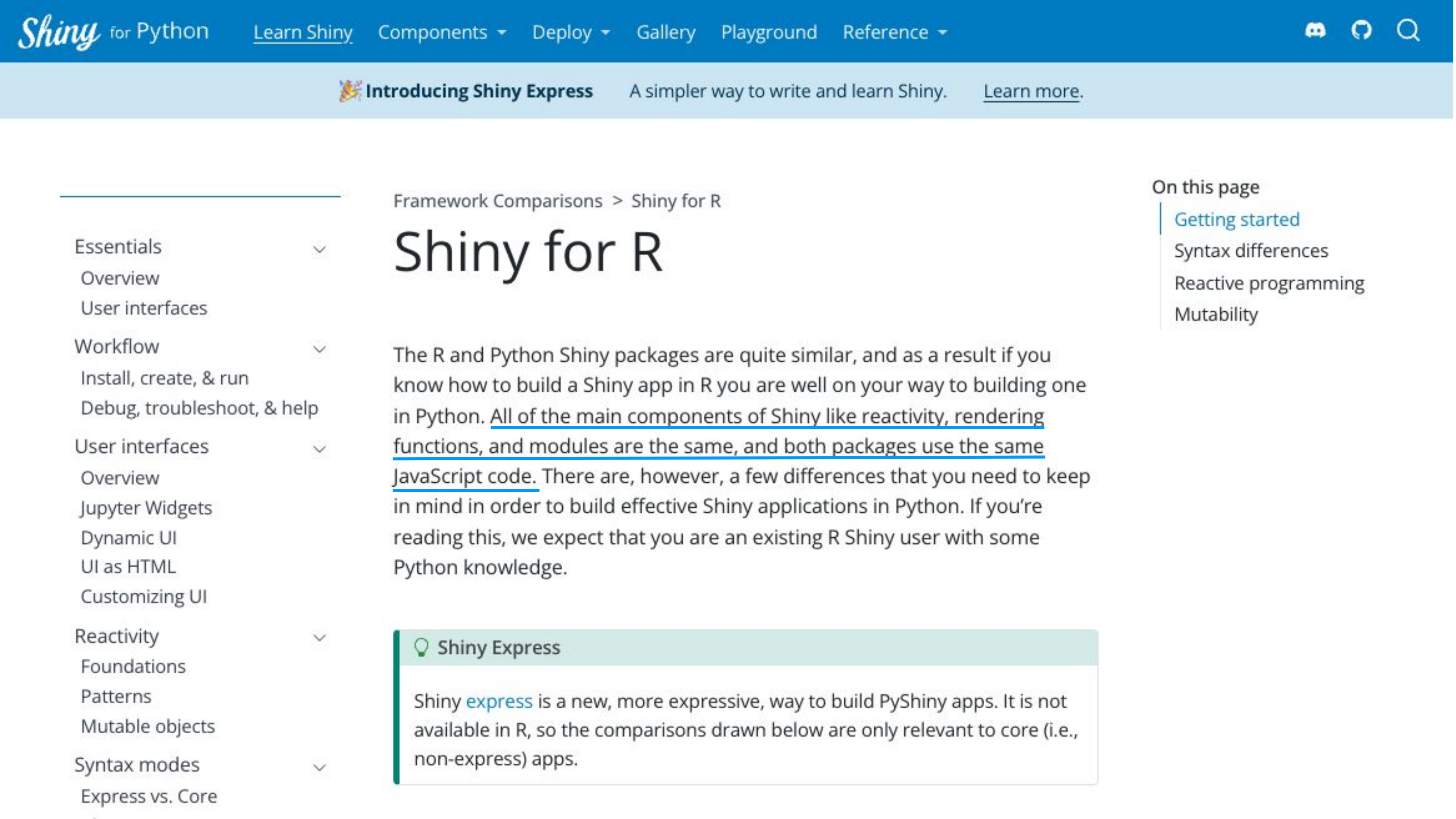
Framework Comparisons > Shiny for R

Shiny for R

The R and Python Shiny packages are quite similar, and as a result if you know how to build a Shiny app in R you are well on your way to building one in Python. All of the main components of Shiny like reactivity, rendering functions, and modules are the same, and both packages use the same JavaScript code. There are, however, a few differences that you need to keep in mind in order to build effective Shiny applications in Python. If you're reading this, we expect that you are an existing R Shiny user with some Python knowledge.

Shiny Express

Shiny express is a new, more expressive, way to build PyShiny apps. It is not available in R, so the comparisons drawn below are only relevant to core (i.e., non-express) apps.



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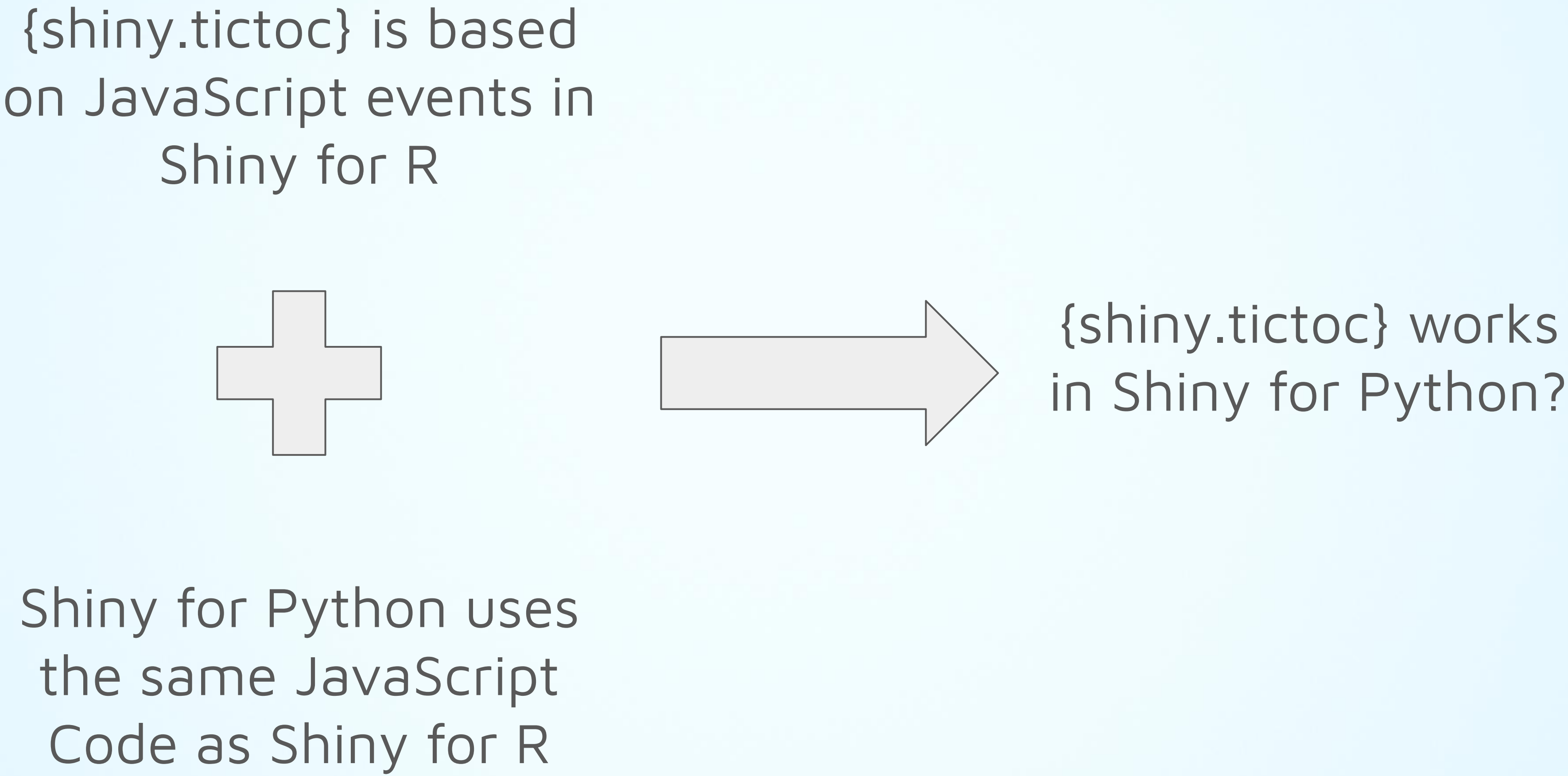
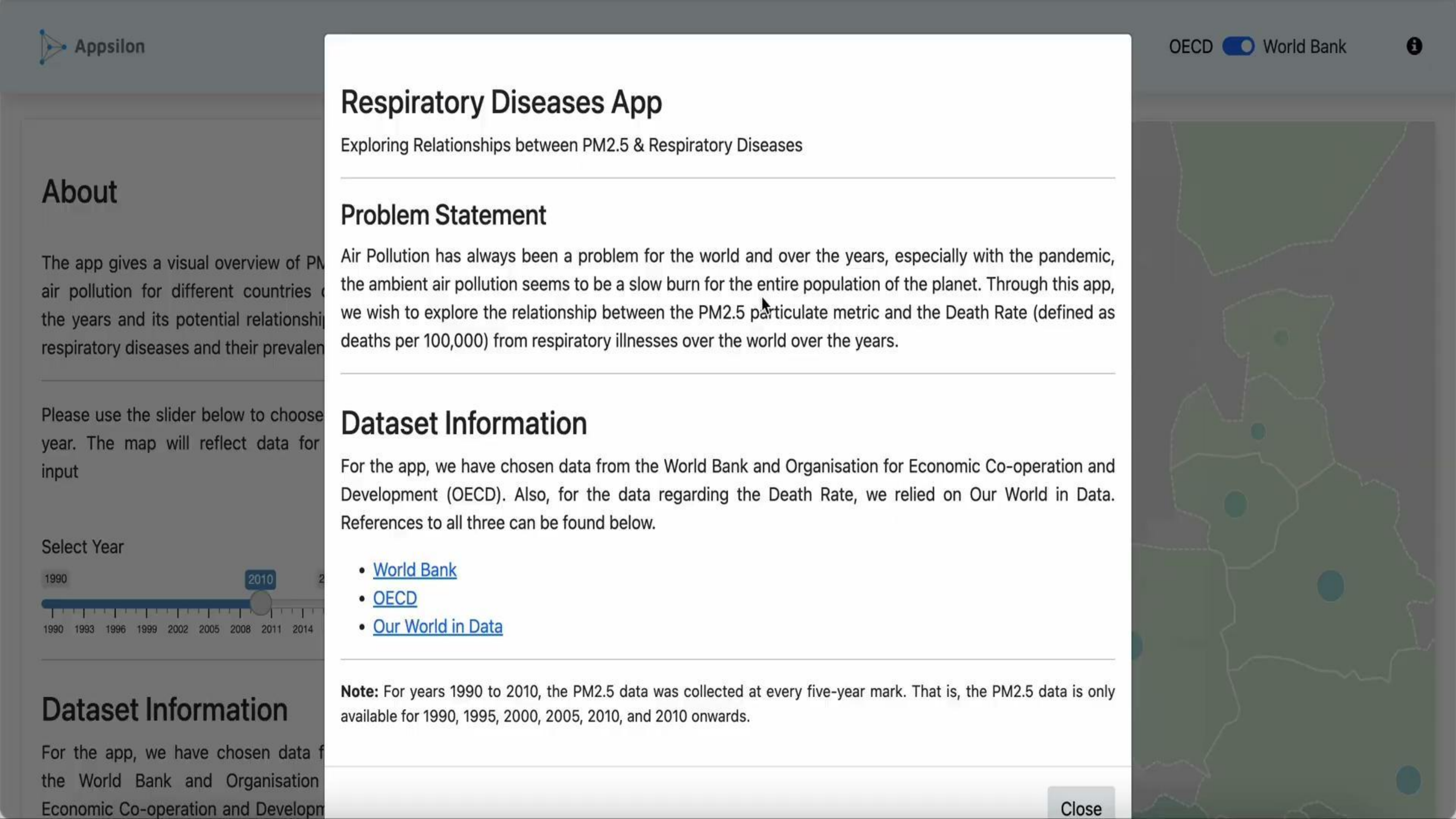


{shiny.tictoc} is based on JavaScript events in Shiny for R

Shiny for Python uses the same JavaScript Code as Shiny for R

{shiny.tictoc} works in Shiny for Python?

Demo (Shiny for Python)



Respiratory Diseases App

Exploring Relationships between PM2.5 & Respiratory Diseases

Problem Statement

Air Pollution has always been a problem for the world and over the years, especially with the pandemic, the ambient air pollution seems to be a slow burn for the entire population of the planet. Through this app, we wish to explore the relationship between the PM2.5 particulate metric and the Death Rate (defined as deaths per 100,000) from respiratory illnesses over the world over the years.

Dataset Information

For the app, we have chosen data from the World Bank and Organisation for Economic Co-operation and Development (OECD). Also, for the data regarding the Death Rate, we relied on Our World in Data. References to all three can be found below.

- World Bank
- OECD
- Our World in Data

Note: For years 1990 to 2010, the PM2.5 data was collected at every five-year mark. That is, the PM2.5 data is only available for 1990, 1995, 2000, 2005, 2010, and 2010 onwards.

About

The app gives a visual overview of PM
air pollution for different countries
the years and its potential relationshi
respiratory diseases and their prevalen

Please use the slider below to choose
year. The map will reflect data for
input

Select Year

Dataset Information

For the app, we have chosen data f
the World Bank and Organisation
Economic Co-operation and Developm

{shiny.tictoc} - setup in Shiny for Python

```python
from shiny import ui

ui.tags.script(
  src="https://cdn.jsdelivr.net/gh/Appsilon/shiny.tictoc@v0.2.0/shiny-tic-toc.min.js"
)
```

Check out {shiny.tictoc} on GitHub!

https://github.com/Appsilon/shiny.tictoc

ryszard@appsilon.com

https://www.linkedin.com/in/ryszard-szymanski/

Thank you!