

# Building real-time apps for web, mobile & desktop in Python

Attila Toth  
Developer Advocate at ScyllaDB

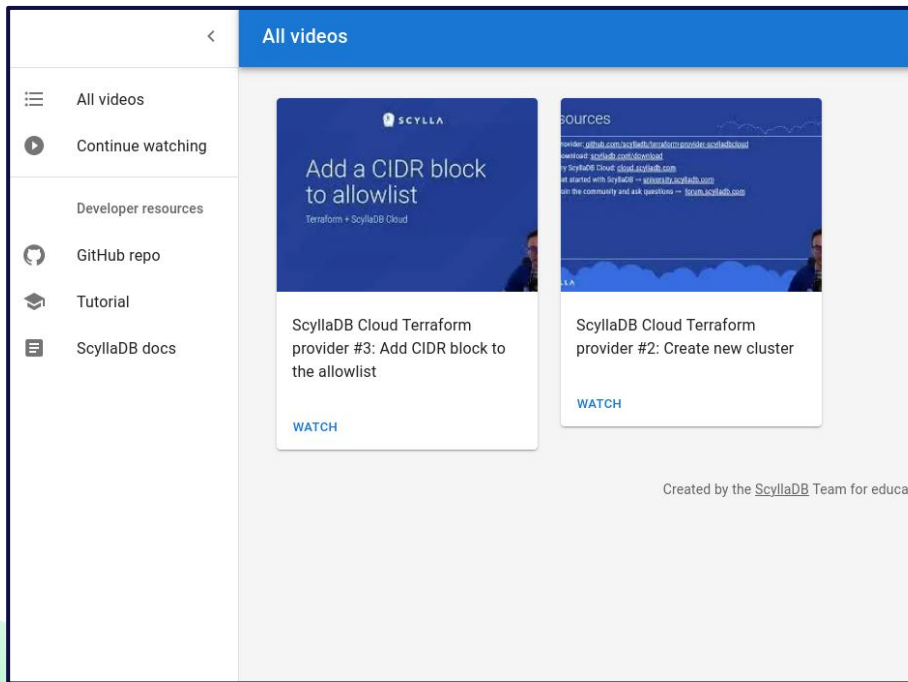
# Attila Toth



- + Developer advocate at ScyllaDB
- + Working as a software engineer / dev advocate for 7+ years
- + Lives in Budapest, Hungary

# Context

# Real-time apps



# Machine learning apps

Zip code

94109

Date of birth

1986/03/19

Last four digits of social security number

3643

Age

25

Yearly income

120000

Do you own or rent your home?

RENT

How long have you been employed (months)?

16

Why do you want to apply for a loan?

PERSONAL

Loan amount

19792

Preferred interest rate

8.10

## Loan Application

User input:

	zipcode	dob_ssn	person_age	person_income	person_home_ownership	person_emp_length	loan_intent
0	94109	19860319_3643	25	120000	RENT	16	PERSONAL


Feature vector (user input + zipcode features + user features):

	zipcode	dob_ssn	person_age	person_income	person_home_ownership	person_emp_length	loan_intent	loan_amnt	loan_int_rate	bankruptcies
0	94109	19860319_3643	25	120000	RENT	16	PERSONAL	19792	8.1	

Model prediction:

Your loan has been approved!

# Gaming apps



### High Hopes

Pray For The Wicked  
Played: 123 times

Filters

Modifiers








no-modifiers

Instrument

guitar

Difficulty

expert+

Position	Player	Score	Stars
#1	 danielreis	98153	3
#2	 scylladb	86376	5
#3	 lulisnadachi	84427	4
#4	 cherryramatisdev	78348	3
#5	 danielhe4rt	62533	4
#6	 kaduwaengertner	60654	5
#7	 tzachi	56592	4

# APIs

## ScyllaDB ecommerce sample application

[openapi.json](#)

[the developer](#) - [Website](#)

### home

**GET** / Home

### products

**GET** /products Products

**POST** /products Upload Product

**GET** /products/{product\_id} Product

**PUT** /products/{product\_id} Update Product

**DELETE** /products/{product\_id} Delete Product

### cart

**GET** /cart/{user\_id} Cart

**POST** /cart/{user\_id} Add To Cart

**DELETE** /cart/{user\_id} Delete From Cart

ScyllaDB



plotly | Dash



Streamlit



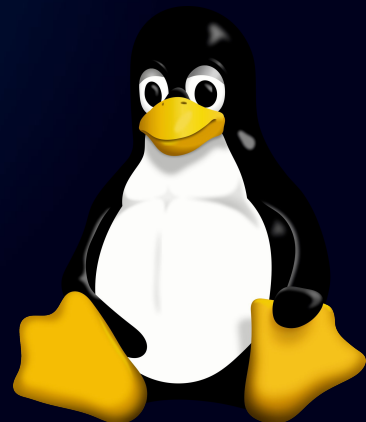
gradio



FastAPI

~~NEXT~~.JS









~~Write JavaScript code~~





ScyllaDB Labs



# Flet

# What is Flet?

# What is Flet?

Gallery Roadmap Blog



Search

CTRL

```
import flet
from flet import IconButton, Page, Row, TextField, icons
```

```
def main(page: Page):
    page.title = "Flet counter example"
    page.vertical_alignment = "center"
```

```
    txt_number = TextField(value="0", text_align="right",
width=100)
```

```
    def minus_click(e):
        txt_number.value = int(txt_number.value) - 1
        page.update()
```

```
    def plus_click(e):
        txt_number.value = int(txt_number.value) + 1
        page.update()
```

```
    page.add(
        Row(
            [
                IconButton(icons.REMOVE, on_click=minus_click),
                TextField(
                    txt_number,
                    IconButton(icons.ADD, on_click=plus_click),
                ],
                alignment="center"
            )
        )
    )
```

```
flet.app(target=main)
```



## Build multi-platform apps in Python powered by Flutter

Flet enables developers to easily build realtime web, mobile and desktop apps in Python. No frontend experience required.

Get Started

flet-dev / flet

Type ↵ to search

+

<> Code

Issues 458

Pull requests 22

Discussions

Actions

Projects 1

Wiki

Security

...

flet

Public

Watch 137

Fork 525

Star 13.3k


main

Go to file

t

+

<> Code

 **FeodorFitsner**

Preparing Flet v0.28.3 rel...

1c040ef · last week

1,109 Commits

.github	Prepare release of Flet 0.25.0 (#44...	6 months ago
ci	Preparing Flet v0.28.3 release (#53...	last week
client	View.can_pop and View.on_confir...	3 weeks ago
docs	Delete ios.md	2 years ago
media	CLI version-related fixes and Flet 0...	last year
packages/flet	Preparing Flet v0.28.3 release (#53...	last week
sdk/python	Preparing Flet v0.28.3 release (#53...	last week
.appveyor.yml	Update .appveyor.yml	3 weeks ago
.gitattributes	Squashed commit of the following:	3 years ago

About

Flet enables developers to easily build realtime web, mobile and desktop apps in Python. No frontend experience required.

flet.dev

androidpythoniosweb

cross-platformdesktopflutter

server-driven-ui

Readme

Apache-2.0 license

Activity

Custom properties

13.3k stars

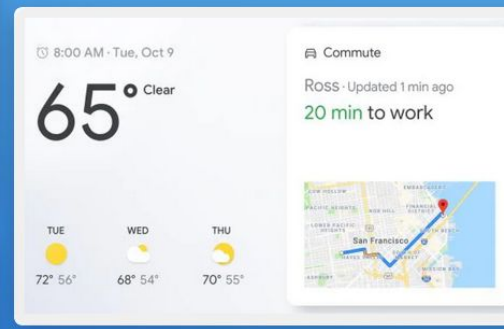
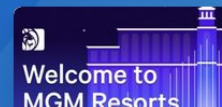
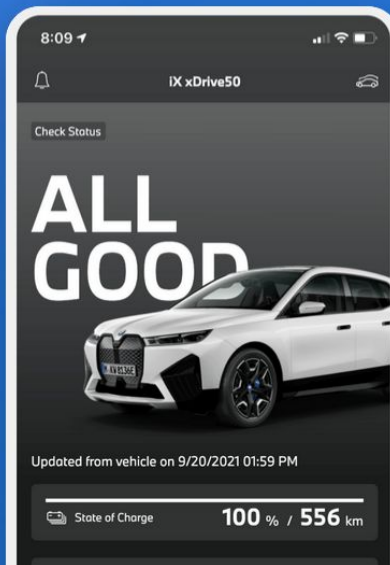
137 watching

525 forks

# What is Flutter?



# Build for any screen



# What is Flutter?

- OSS cross-platform framework
- Uses Dart programming language
- Backed by Google
- Has a big community



# Flutter

```
import 'package:english_words/english_words.dart';
import 'package:flutter/material.dart';
import 'package:provider/provider.dart';

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  const MyApp({super.key});

  @override
  Widget build(BuildContext context) {
    return ChangeNotifierProvider(
      create: (context) => MyAppState(),
      child: MaterialApp(
        title: 'Namer App',
        theme: ThemeData(
          colorScheme: ColorScheme.fromSeed(seedColor: Colors.deepOrange),
        ),
        home: MyHomePage(),
      ),
    );
  }
}
```

# flet 0.28.3



Published 9 days ago • [flet.dev](#) Dart 3 compatible

[SDK](#)[FLUTTER](#)[PLATFORM](#)[ANDROID](#)[IOS](#)[LINUX](#)[MACOS](#)[WEB](#)[WINDOWS](#)

👍 74

[Readme](#)[Changelog](#)[Installing](#)[Versions](#)[Scores](#)

74

LIKES

110

POINTS

6.52k

DOWNLOADS

Publisher

[flet.dev](#)

Weekly Downloads



2024.07.03 - 2025.05.28

Metadata

Write entire Flutter app in Python or add server-

## Flet

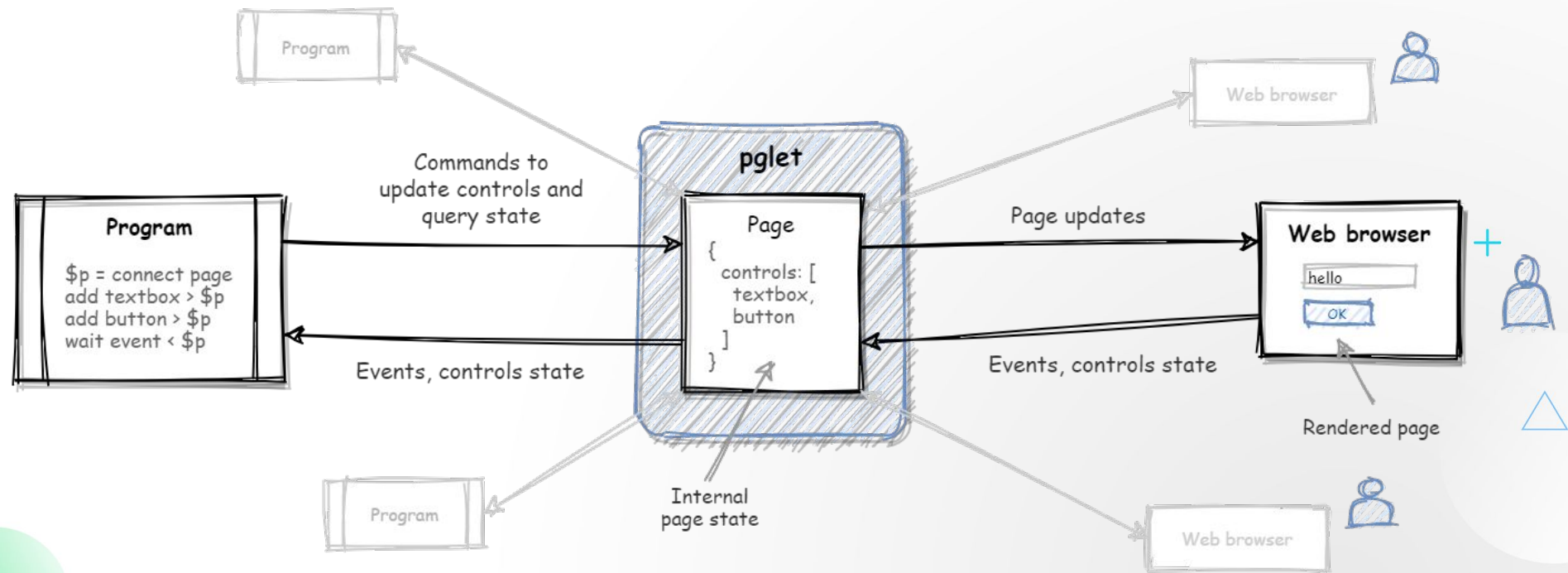


Flet is a framework for adding server-driven UI (SDUI) experiences to existing Flutter apps or building standalone web, mobile and desktop apps with Flutter UI.

Add an interactive `FletApp` widget to your Flutter app whose content is controlled by a remote Python script. It is an ideal solution for building non-core or frequently changing functionality such

# How Flet works

# How Flet works?



# Why I like using Flet

- No frontend experience required
- Simple, quick development and packaging
- Easy to create interactive apps (SPAs)
- Powered by Flutter
- Hot-reload (on mobile device as well)



# Get started with Flet!+



# DEMO God

Prompt:

“Create an image of a God who governs the success or failure of live software demos”



# Summary

## Why use Flet?

- If you don't want to deal with frontend code
- Allows you to launch QUICKLY
- Simple, yet flexible
- Uses Flutter (Backed by Google and has an active community)

## Why NOT use Flet?

- No direct access to Flutter widgets
- Platform specific requirements can be tricky  
(Pyjnius and Pyobjus are now available, so maybe not anymore?)
- If you need more complex UI

# Grazie mille!

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ATTILA.TOTH@SCYLLADB.COM

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Slides (and more):  
[AttilaToth.dev/PyConItaly](https://AttilaToth.dev/PyConItaly)

