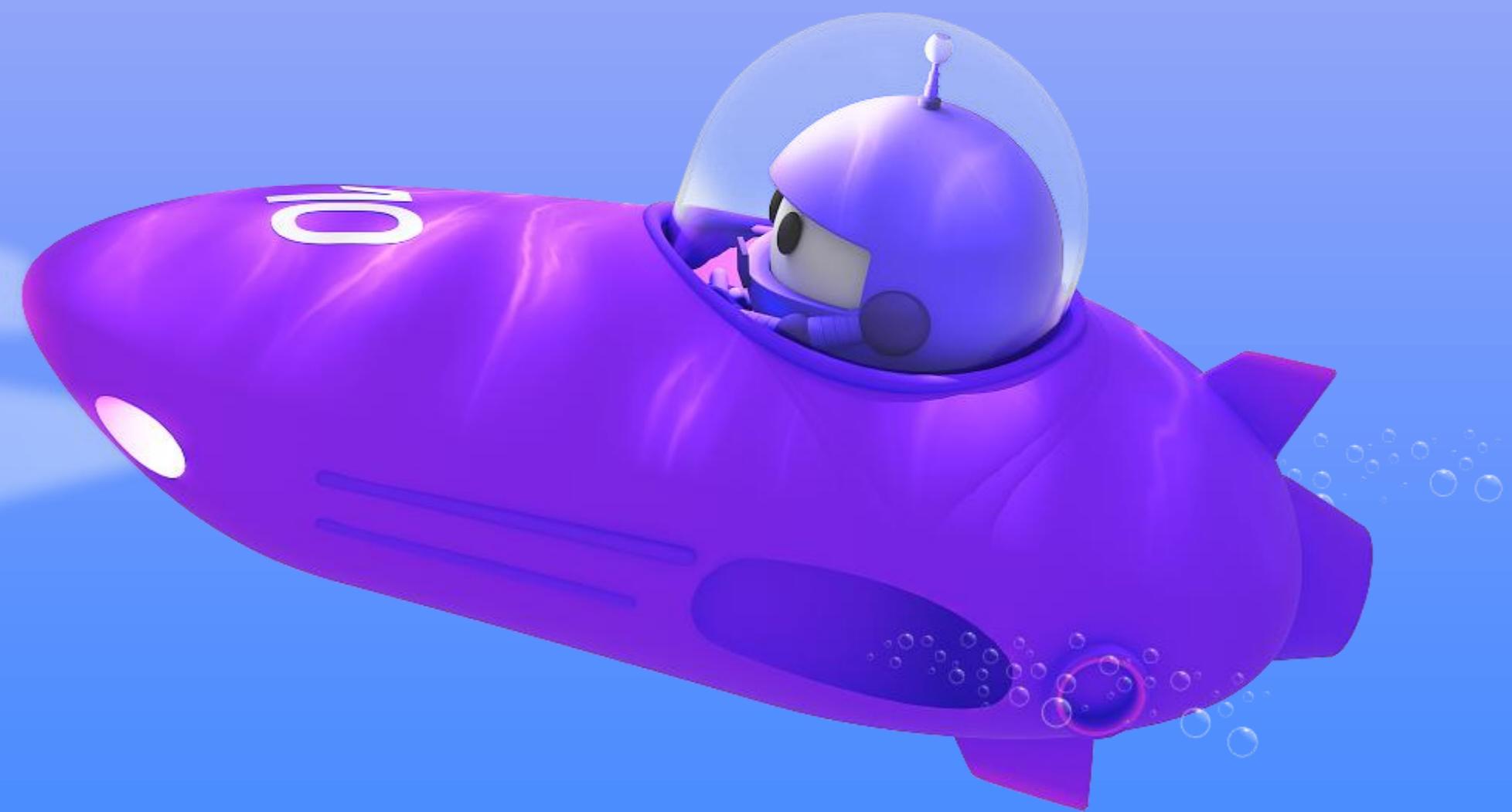


# Community Toolkit Roundup

.NET



# Who are we?

**Michael A. Hawker**

Windows Community Toolkit



Senior Software Engineer

**Sergio Pedri**

.NET Community Toolkit



Senior Software Engineer

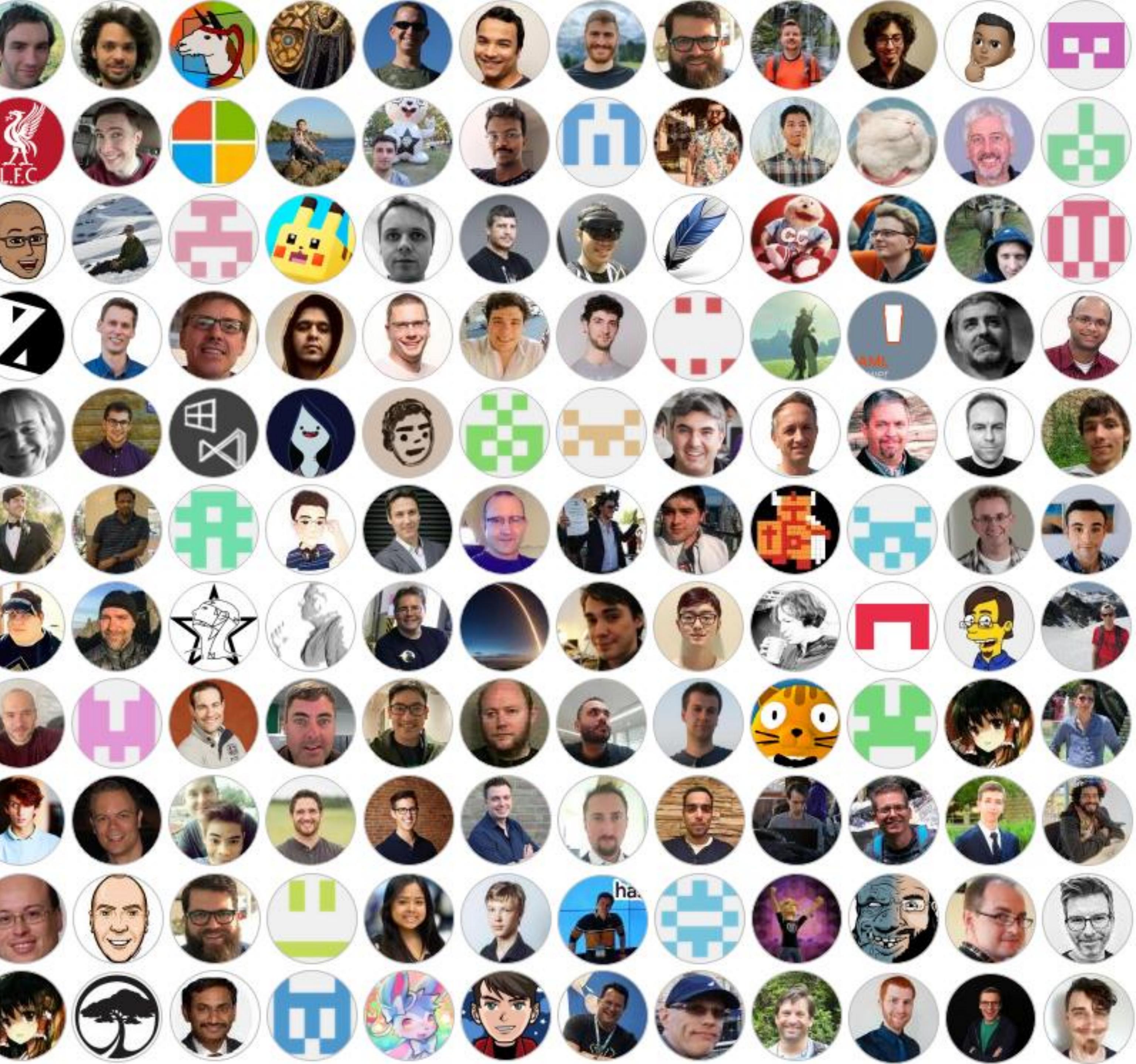
**Gerald Versluis**

.NET MAUI Community Toolkit



Senior Software Engineer

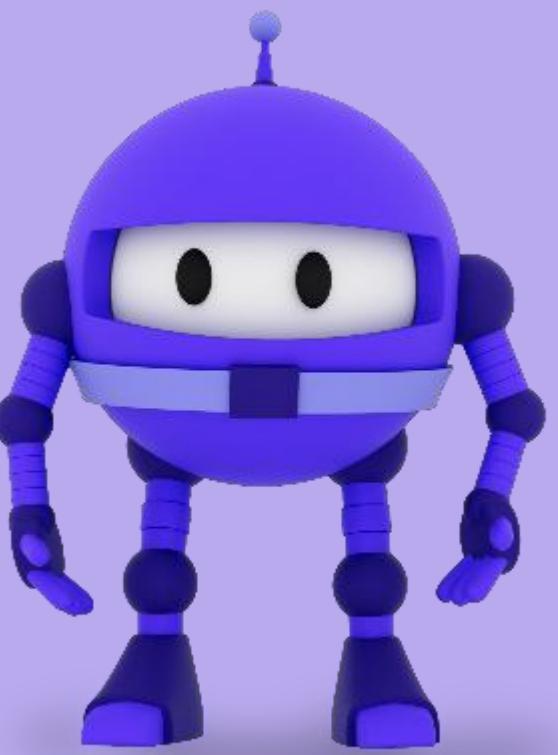
# And You!



## Table of contents

- 01** About the Toolkits
- 02** .NET Community Toolkit
- 03** Aspire Community Toolkit
- 04** .NET MAUI Community Toolkit
- 05** Windows Community Toolkit
- 06** Contributing

# 01 About the Toolkits



# Community Toolkits



**A collection of libraries that are:**

- For .NET based technologies
- Open Source on GitHub
- MIT Licensed
- Part of the .NET Foundation



**<https://aka.ms/toolkit>**

# Community Toolkits

## in Numbers

**6+**

Toolkit projects

**170+**

Packages on NuGet

**76M+**

Downloads on NuGet

**16K+**

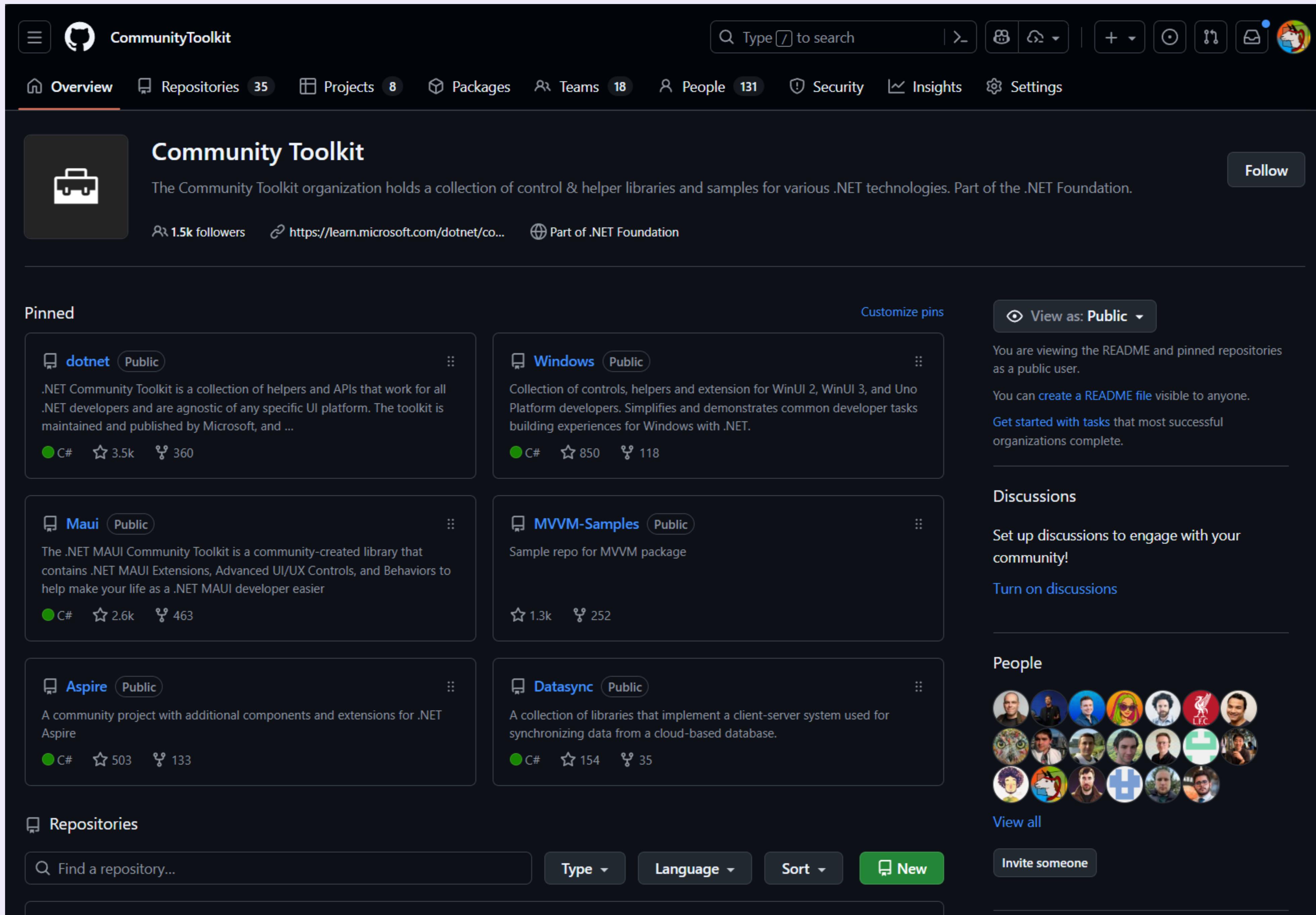
Stars on GitHub

**350+**

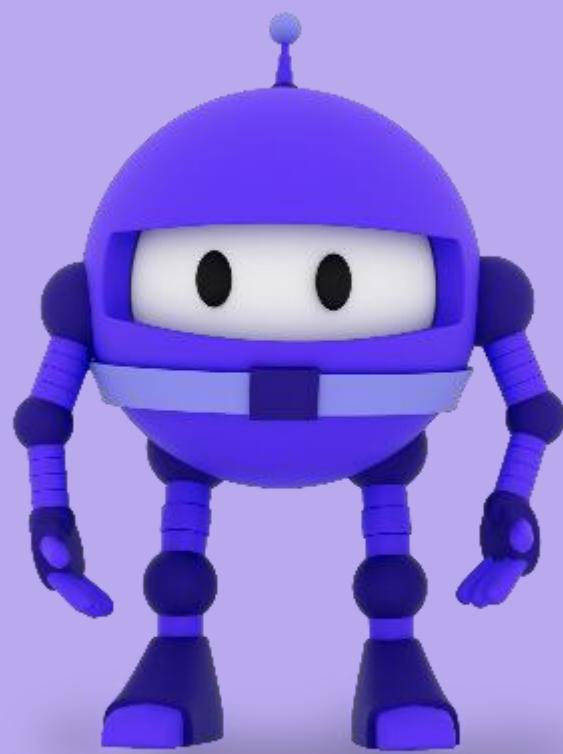
Contributors

**150+**

Releases in 9 Years



# 02-05 The Toolkits



.NET

# Community Toolkit

Collection of helpers and APIs that work for all .NET developers and are agnostic of any specific UI platform.

Latest: v8.4

Partial properties support for `[ObservableProperty]`

New `ReadOnlySequence<byte>.AsStream()` extension

Lots of new analyzers to write more robust MVVM code

Plenty of other improvements and small new features!

AOT support for UWP and WinUI 3 XAML applications

HighPerformance and Diagnostics packages too 

[aka.ms/mvvmtoolkitapp](https://aka.ms/mvvmtoolkitapp)

03

# Aspire Community Toolkit

Additional components and extensions for .NET Aspire  
(Aspire provides tools, templates, and packages for building  
observable, production-ready distributed apps.)

Aaron Powell



Principal Cloud Advocate

Latest: v9.9  
Next: v13.0

Grown from ~12 integration to over 50

Adopted and evolved the Dapr integration from Aspire

Over 50 contributors, with the majority being non-Microsoft

Covering a wide range of additional languages like Rust, Go, Java, Deno, and Bun

Extending built-in database integrations with more browser-based DB tools like DbGate

Actively working to support Aspire 13, with some features moving into Aspire directly

# .NET MAUI

## Community Toolkit

Community-created library that contains .NET MAUI Extensions, Advanced UI/UX Controls, and Behaviors.

Latest: v12.3.0

Completely new Popup implementation

CameraView video recording

Offline Speech Recognition

Loads of bugfixes

MediaElement on Media3 for Android

Continued efforts on stability and quality

# Windows Community Toolkit

Collection of controls, helpers and extension for WinUI 2, WinUI 3, and Uno Platform developers.

Latest: v8.2

Native AOT and UWP Support for .NET 9+

DispatcherQueueTimer.Debounce

SwitchPresenter Improvements & SwitchConverter

And much, much, more is here for WinUI devs!

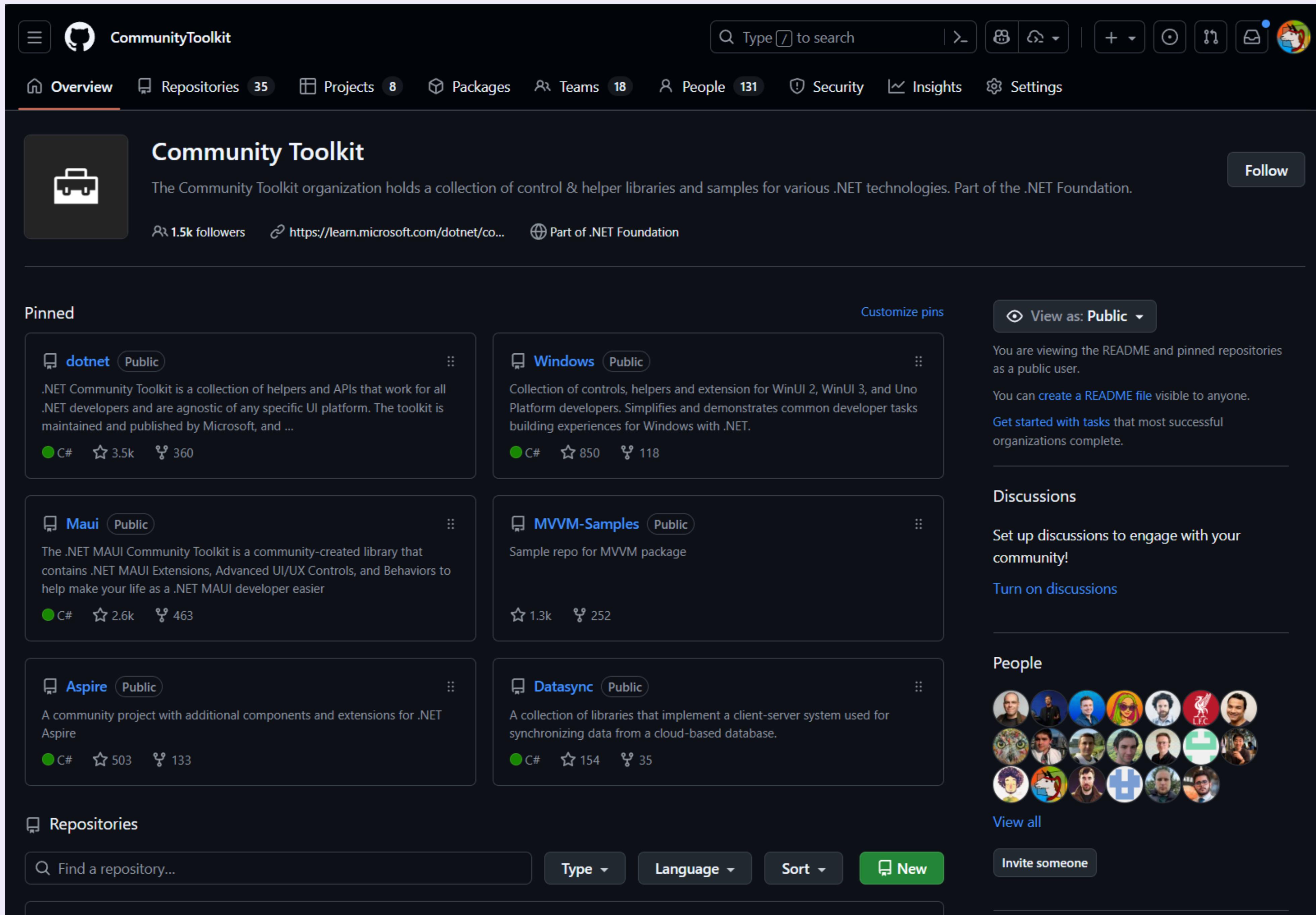
In-app AcrylicBrush for WinUI3

WCT Labs: *DependencyPropertyGenerator* & *OpacityMaskView*

[aka.ms/windowstoolkitapp](https://aka.ms/windowstoolkitapp)

# 06 Contributing





**Closed** [Proposal] CameraView minimal port #259  
↳ #1758

## Detailed Design

### CameraView.shared.cs

```
public class CameraView : View
{
    public static readonly BindableProperty IsCameraViewBusyProperty;
    public static readonly BindableProperty IsAvailableProperty;
    public static readonly BindableProperty FlashModeProperty;

    // Use WeakEventManager
    public event EventHandler<bool>? OnAvailable;
    public event EventHandler<MediaCapturedEventArgs>? MediaCaptured;
    public event EventHandler<string>? MediaCaptureFailed;

    public bool IsCameraViewBusy { get; }
    public bool IsAvailable { get; }
    public CameraOptions CameraOptions { get; set; }
    public void Shutter();
}
```

## Usage Syntax

### XAML Usage

```
<ContentPage xmlns="http://xamarin.com/schemas/2014/forms"
    xmlns:x="http://schemas.microsoft.com/winfx/2009/xaml"
    xmlns:xct="http://xamarin.com/schemas/2020/toolkit"
    x:Class="MyLittleApp.MainPage"

    <StackLayout>
        <xct:CameraView
            x:Name="cameraView"
            FlashMode="On"
            MediaCaptured="CameraView_MediaCaptured"
            HorizontalOptions="FillAndExpand"
            VerticalOptions="FillAndExpand" />
    </StackLayout>
</ContentPage>
```

### C# Usage

```
class MyPage : ContentPage
{
    public MyPage()
    {
        Content = new CameraView
```

**Open** New row not created for last child in WrapPanel when StretchChild=Last #743

michael-hawker opened last week Member ...

As I was writing up the [spec for the WinUI transfer](#) and looking at primitive examples and was a bit baffled at what was happening with StretchChild and my intuitive expectations...

Take this code:

```
<controls:WrapPanel Width="132" StretchChild="Last">
    <Rectangle Fill="Red" Width="45" Height="44"/>
    <Rectangle Fill="Blue" Width="44" Height="44"/>
    <Rectangle Fill="Green" Width="44" Height="44"/>
    <Rectangle Fill="Orange" Height="44"/>
</controls:WrapPanel>
```

This properly stretches the last item across the bottom:

However, if we make enough room for the green box on the first row (by making the red 44 width [only change])...

```
<controls:WrapPanel Width="132" StretchChild="Last">
    <Rectangle Fill="Red" Width="44" Height="44"/>
    <Rectangle Fill="Blue" Width="44" Height="44"/>
    <Rectangle Fill="Green" Width="44" Height="44"/>
    <Rectangle Fill="Orange" Height="44"/>
</controls:WrapPanel>
```

Actual: Then the Orange rect disappears entirely!

Expected: I would expect it to span the entire bottom row, like so:



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## Overview

### .NET Community Toolkit

[Introduction](#)[Getting Started](#)

### > MVVM Toolkit

### > Diagnostics

### > High Performance

### .NET Aspire Community Toolkit

### > Windows Community Toolkit

[Introduction](#)[Getting Started](#)

### Labs ↗

### Sample Gallery ↗

### .NET MAUI Community Toolkit

# Community Toolkits for .NET Documentation

The home for Community Toolkits for .NET which are partnering the community with engineers, Microsoft MVPs, and the teams working on those technologies. The Community Toolkits offer a collection of reusable implementations that aim to simplify common development tasks for a variety of .NET frameworks.

## .NET Community Toolkit

### OVERVIEW

[What is the .NET Community Toolkit?](#)

### REFERENCE

[Introduction to the MVVM Toolkit](#)[Introduction to the Diagnostics Package](#)[Introduction to the High Performance Package](#)

### GET STARTED

[Installation](#)

## .NET Aspire Community Toolkit

### OVERVIEW

[.NET Aspire Community Toolkit overview](#)

### GET STARTED

[Ollama \(AI\)](#)[Azure Static Web Apps](#)[Python hosting extensions](#)[SQLite Entity Framework Core](#)

### SAMPLE

[.NET Aspire Community Toolkit GitHub repo ↗](#)

## Windows Community Toolkit

### OVERVIEW

[What is the Windows Community Toolkit?](#)

### QUICKSTART

[Windows Community Toolkit Gallery ↗](#)

### REFERENCE

[Graph Helpers and Controls](#)

### GET STARTED

[Installation](#)[Using with Uno Platform ↗](#)

## .NET Multi-platform App UI (.NET MAUI) Community Toolkit

### OVERVIEW

[What is the .NET MAUI Community Toolkit?](#)

### GET STARTED

[Installation](#)[Download PDF](#)

## .NET MAUI Native Library Interop

### OVERVIEW

[What is the Native Library Interop?](#)

### GET STARTED

[Getting started with Native Library Interop](#)

# Getting in Touch

GitHub!

.NET MAUI Community Standups

Windows App Community Discord

<https://windowsappcommunity.com/>

X/Twitter: **@XAMLLlama @SergioPedri @jfversluis**

Bluesky: **@xamllama.bsky.social @jfversluis.dev**

.NET MAUI Community Toolkit Discord

<https://aka.ms/mct/discord>

# Resources

[aka.ms/toolkit](https://aka.ms/toolkit)

[aka.ms/toolkit/docs](https://aka.ms/toolkit/docs)

[github.com/CommunityToolkit/Aspire](https://github.com/CommunityToolkit/Aspire)

[github.com/CommunityToolkit/dotnet](https://github.com/CommunityToolkit/dotnet)

[github.com/CommunityToolkit/Maui](https://github.com/CommunityToolkit/Maui)

[github.com/CommunityToolkit/Windows](https://github.com/CommunityToolkit/Windows)

# Thank you

