

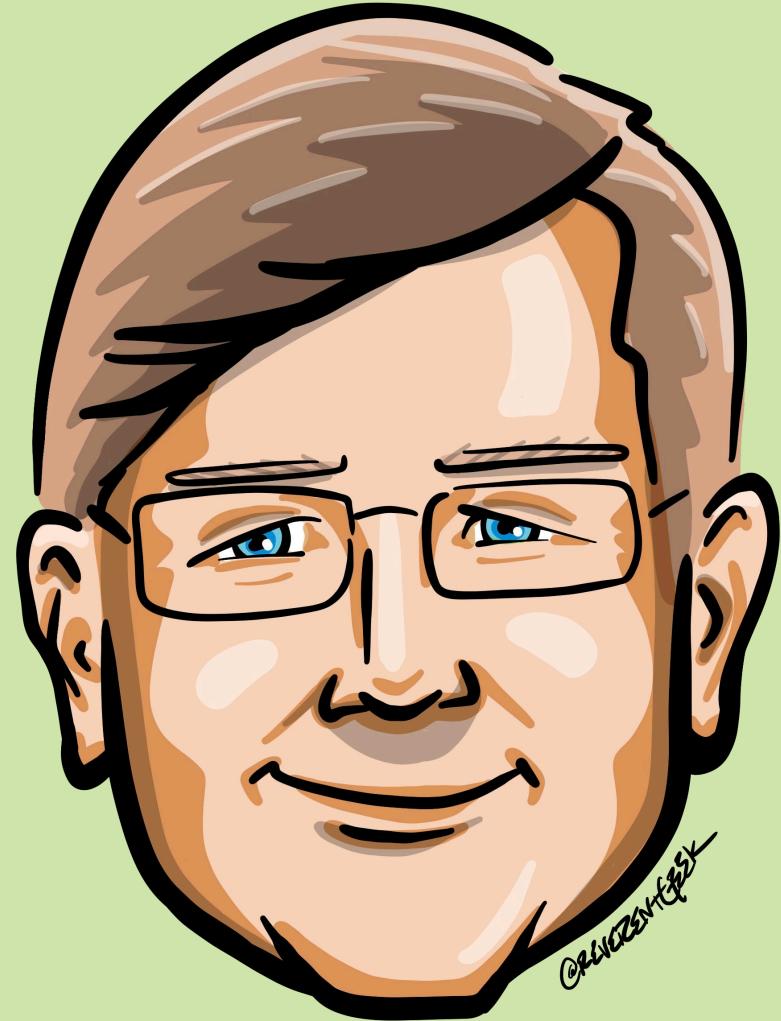
LOUISVILLE  
.NET MEETUP

# WHATS NEW IN C#10 AND .NET 6



# Who is Chad Green

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# .NET Ecosystem Momentum

**5.4 Million**

.NET Developers

**#1**

Most Loved Framework (2019, 20, 21)

**Top 30**

Highest velocity OSS project since 2017

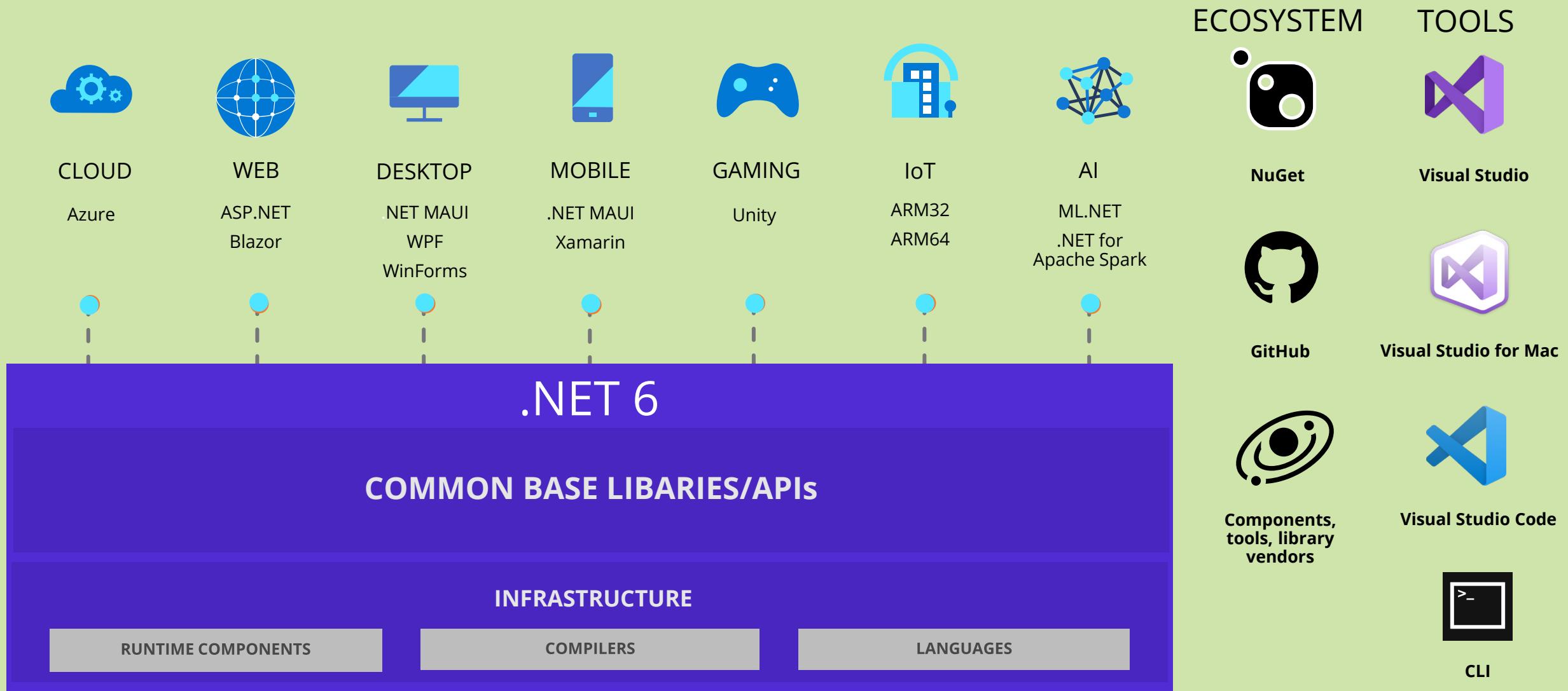
**>6.9K**

Community Contributors

**>21K**

Community Contributions

# .NET – A unified development platform



# .NET 6

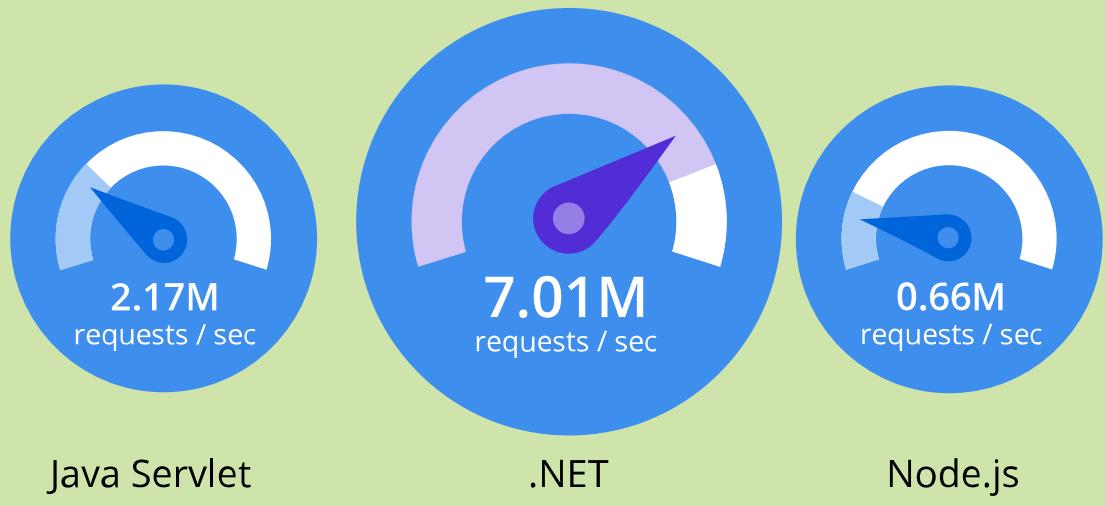
Unified common base libraries & SDK

# .NET 6

Unified common base libraries & SDK

Industry leading performance

# .NET 6 Performance



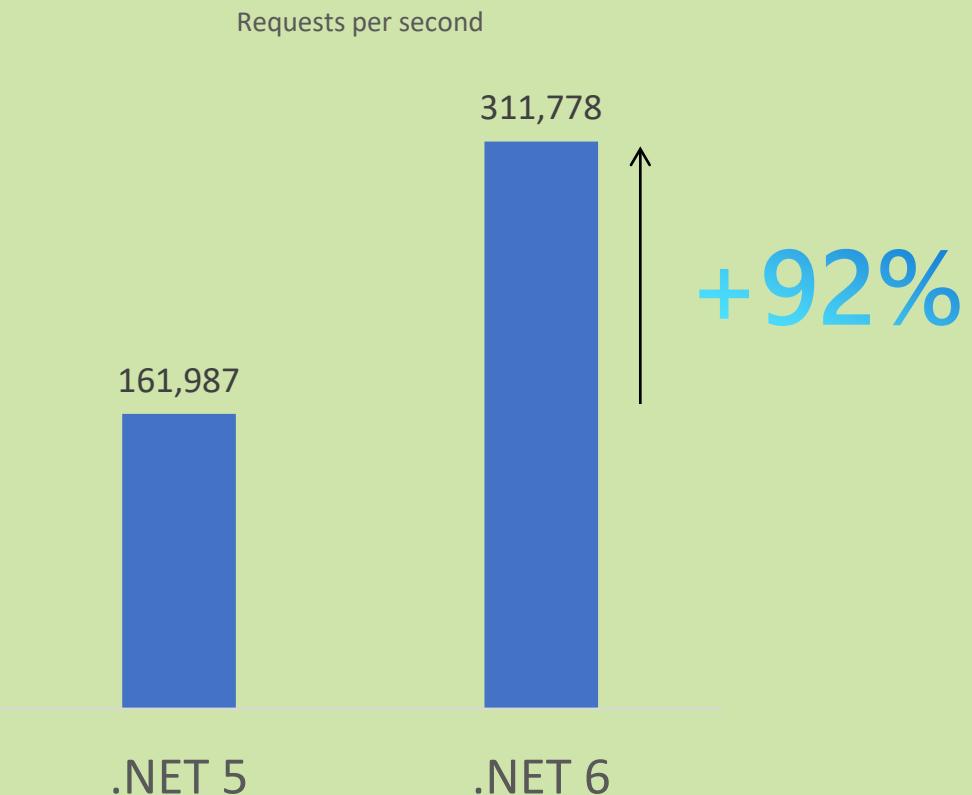
Java Servlet

.NET

Node.js

>10X faster than Node.js

ASP.NET Core web framework



# .NET 6

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Simplified development, easier to get started

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Long-Term Support Release

- Production stress-tested
- Supported for three years
- Unified platform
- Performance
- C# 10
- Visual Basic
- Hot Reload
- Cloud diagnostics
- JSON APIs
- Minimal APIs
- Blazor
- Web Assembly AOT
- Single-page apps
- HTTP/3
- File IO
- Security
- Single-File apps (extraction free)
- IL trimming
- Source generators and analyzers
- Source build

# C# Evolution



January 2002

# C# Evolution



April 2003

# C# Evolution



November 2005

# C# Evolution



November 2007

# C# Evolution



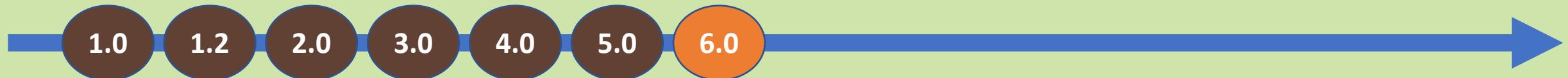
April 2010

# C# Evolution



August 2012

# C# Evolution



July 2015

# C# Evolution



March 2017

# C# Evolution



August 2017

# C# Evolution



November 2017

# C# Evolution



May 2018

# C# Evolution



# September 2019

# C# Evolution



# September 2020

# C# Evolution



November 2021

# C# Evolution



November 2021

# C# Evolution



- Record structs
- Improvements of structure types
- Interpolated string handlers
- Global using directives
- File-scoped namespace declarations
- Extended property patterns
- Improvements on lambda expressions
- Allow const interpolated strings
- Record types can seal `ToString()`
- Improved definite assignment
- Allow both assignment and declaration in the same deconstruction
- Allow `AsyncMethodBuilder` attribute on methods
  - `CallerArgumentExpression` attribute
  - Enhanced `#line` pragma

# Entity Framework Core 6

What's New in C# 10 and .NET 6

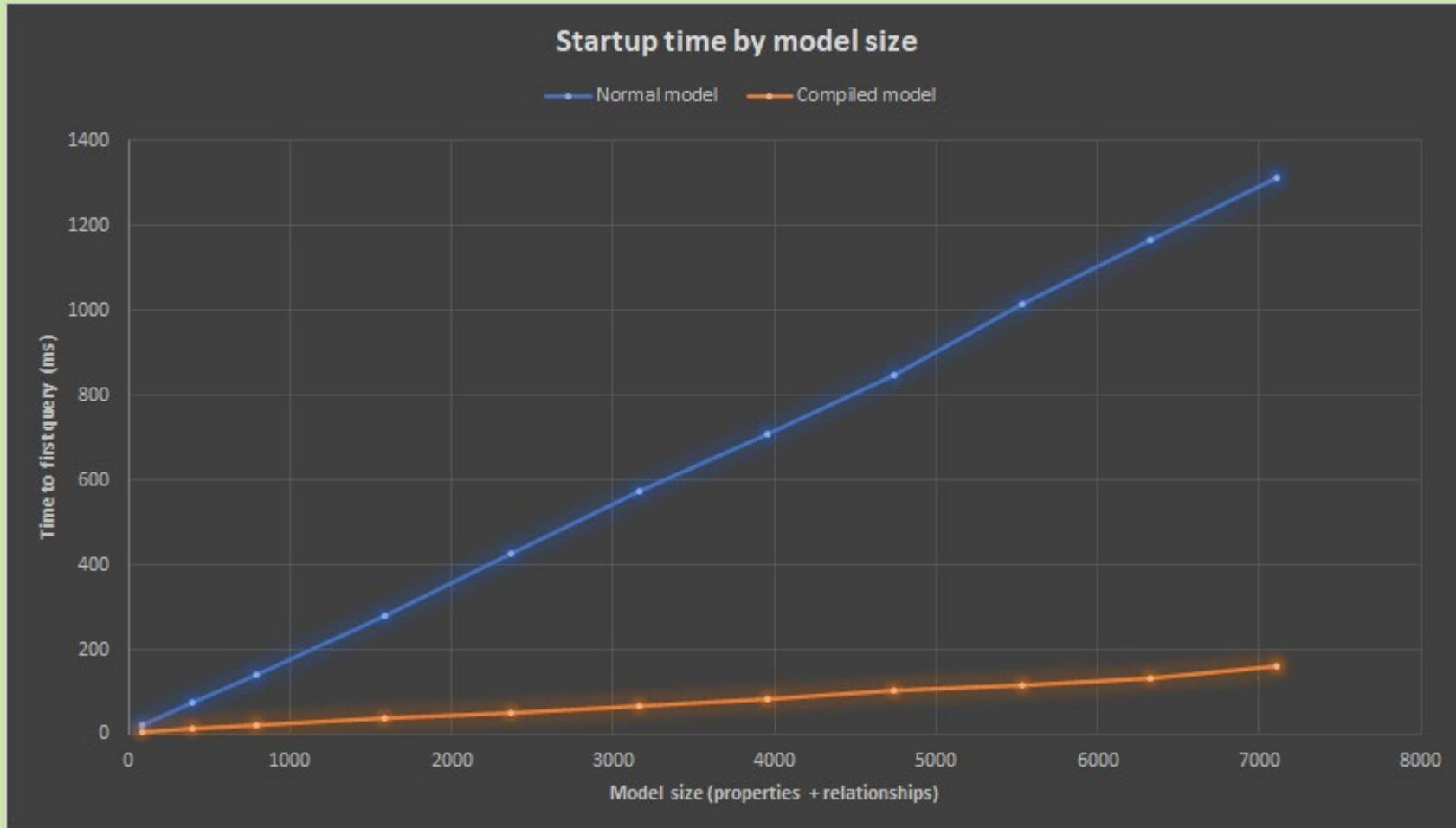
# Entity Framework Core 6

## Migration Bundles

# Entity Framework Core 6

## Compiled Models

# Entity Framework Core 6



# Entity Framework Core 6

Improved Performance  
on TempEmpower  
Fortunes

# Entity Framework Core 6

## Cosmos Provider Enhancements

# Entity Framework Core 6

## Miscellaneous Improvements

# ASP.NET Core 6

What's New in C# and .NET 6

# ASP.NET Core 6.0

## Minimal APIs

# ASP.NET Core 6.0

## Async Streaming

# ASP.NET Core 6.0

## Bootstrap 5.1

# ASP.NET Core 6.0

## Null-State Analysis

# ASP.NET Core 6.0

CSS isolation for  
pages and views

## JavaScript modules

# ASP.NET Core 6.0

## Blazor Improvements

# ASP.NET Core 6.0

## .NET WebAssembly Build Tools

# ASP.NET Core 6.0

## Single-Page Apps

# ASP.NET Core 6.0

## Socket Control

## Strongly-Typed Headers

## HTTP & W3C Logging

# ASP.NET Core 6.0

## HTTP/3

# Demo Time



# Thank You!

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