Let’s Create a GitHub Copilot Extension

About Me

- Developer Advocate at Pomerium
- From Montreal, Quebec, Canada
- I'm @nickytonline everywhere
- All the places you can find are on nickyt.online
- Not a big fan of spiders

Feedback Form

nickyt.online

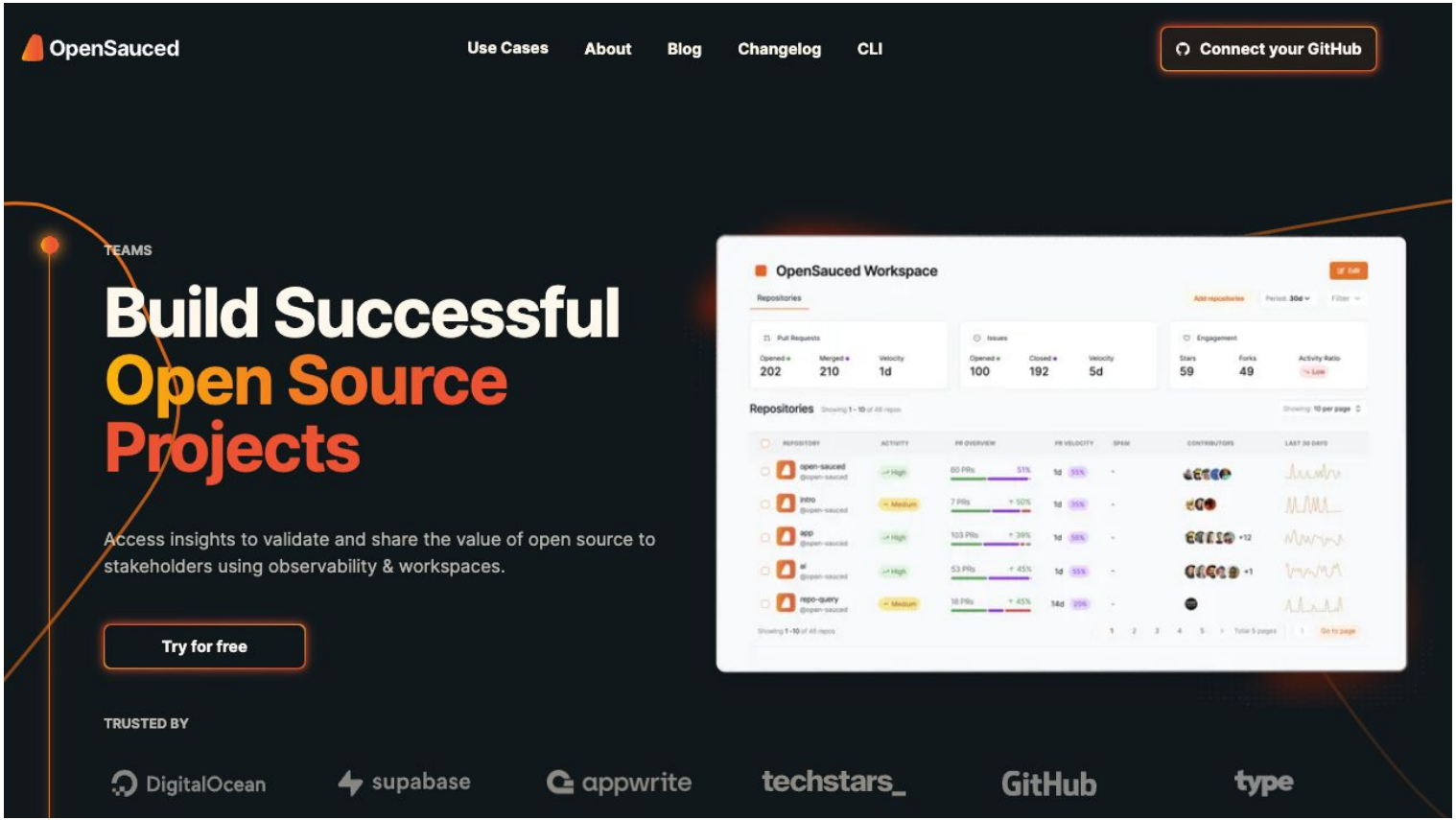
What We'll Cover

What We'll Cover

- What is GitHub Copilot?
- What is a GitHub Copilot Extension?
- The anatomy of a Copilot Extension
- Let's Build!
  - Grab the nickytonline/copilot-extension-template template repository
  - Copilot Extension SDK Preview
  - Getting Your Development Environment Set Up
- Wrapping Up

BEFORE WE GET STARTED

Story Time


OpenSauced
Use Cases
About
Blog
Changelog
CLI
Connect your GitHub
TEAMS
Build Successful Open Source Projects
Access insights to validate and share the value of open source to stakeholders using observability & workspaces.
Try for free
TRUSTED BY
DigitalOcean
supabase
appwrite
techstars_
GitHub
type
OpenSauced Workspace
Repositories
Pull Requests
Opened 202
Merged 210
Velocity 1d
Issues
Opened 100
Closed 192
Velocity 5d
Engagement
Stars 59
Forks 49
Activity Ratio
Repositories
open-sauced
intro
app
api
repo-query

OpenSauced Workspace StarSearch Users, Repositories... ⌘K

You

What type of pull requests has @brandonroberts worked on?

StarSearch

Here are some notable pull requests by @brandonroberts:

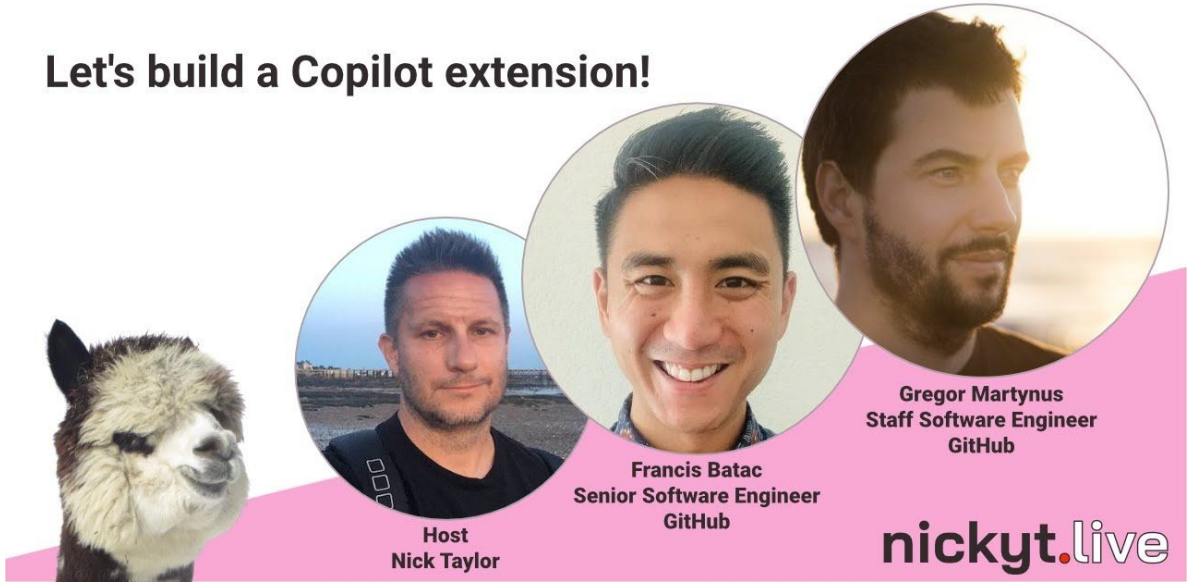
1. **Repository:** analogjs/analog
   - **Title:** build: only build packages during release job
   - **State:** Merged
   - **Description:** Focuses on configuring the build process to only package during the release job.
   - **Changes:** Involved 10 additions and 9 deletions over 10 files.
   - **Comments:** 4
2. **Repository:** analogjs/analog
   - **Title:** docs(astro-angular): add docs on filtering file transforms with Astro
   - **State:** Merged

Need inspiration? ↑

Ask a question

StarSearch may generate incorrect responses, double check important information

nickyt.online


Let's build a Copilot extension!
Host
Nick Taylor
Francis Batac
Senior Software Engineer
GitHub
Gregor Martynus
Staff Software Engineer
GitHub
nickyt.live

If you want to follow along with the demo later, pull down this template repository

nickytonline/copilot-extension-template

What is GitHub Copilot?

What is GitHub Copilot?

GitHub Copilot is a coding assistant, your pair programming buddy

- Can perform inline code completions
- Has chat capabilities to ask questions, get answers and refactor files
- Can be extended via GitHub Copilot Extensions
- Has a new agent mode as of early February 2025

What is GitHub Copilot?

GitHub Copilot can now be used in any editor if they leverage the recently released [Copilot Language Server SDK]

What is GitHub Copilot?

Where can you use Copilot?

- Microsoft development environments and properties
  - GitHub.com
  - Visual Studio
  - Visual Studio Code
  - GitHub Codespaces

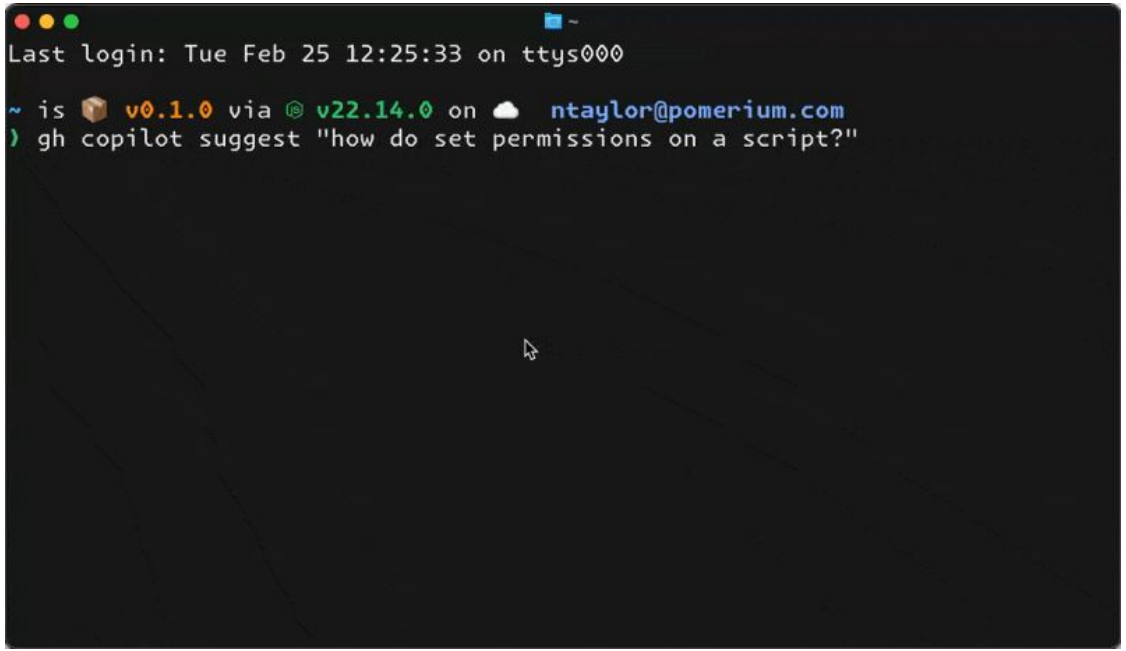
What is GitHub Copilot?

Where can you use Copilot?

- JetBrains IDEs
- XCode
- Vim/Neovim
- Any editor that leverages the Copilot Language Server SDK

What is GitHub Copilot?

You can even use GitHub Copilot on the command line now



What is a GitHub Copilot Extension?

What is a GitHub Copilot Extension?

The name says it all. It literally extends GitHub Copilot

- Create custom AI-powered tools
- Integrate with third-party services
- Can access files and editor context

What is a GitHub Copilot Extension?

Two types of Copilot Extensions:

🧰 Skillset: makes it easier to connect third-party services and custom APIs into the Copilot workflow

🤖 Agent: provides complete control over request handling and response generation, enabling custom workflows through integration with LLMs and APIs while managing conversation context and user interactions.

What is a GitHub Copilot Extension?

An extension works anywhere GitHub Copilot is available except for the command line.

What is a GitHub Copilot Extension?

If calling a Copilot extension that is an agent, your prompt must start with **@copilot-your-extension-name**

The anatomy of a Copilot Extension

The anatomy of a Copilot Extension

Two things are required to create a Copilot extension:

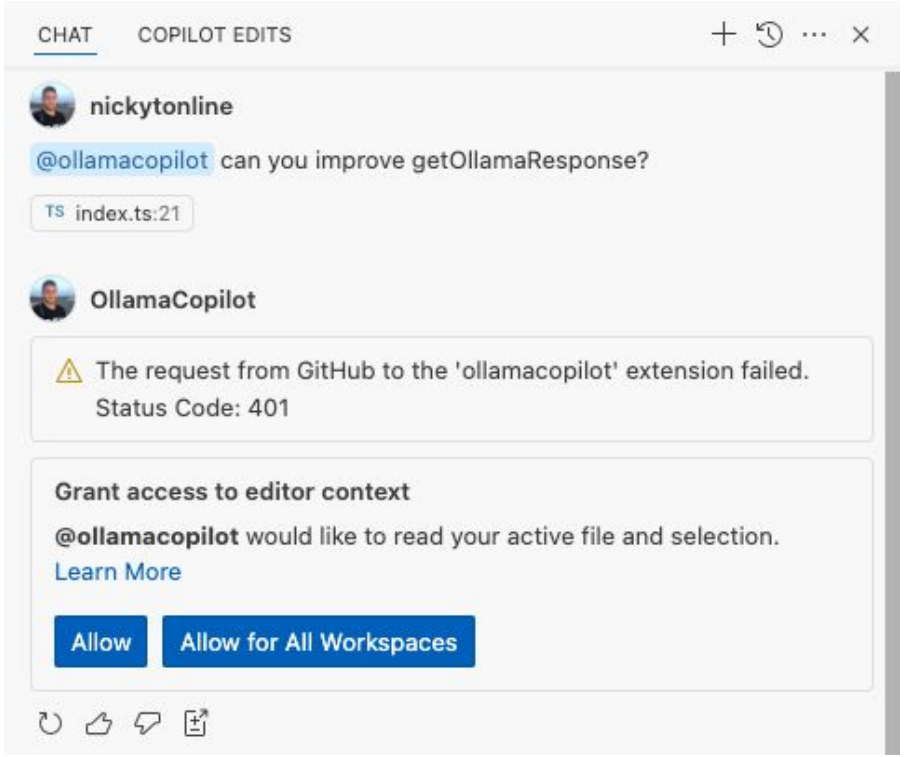
- A publicly accessible web application
- A registered GitHub application

The anatomy of a Copilot Extension

Permissions to set for the GitHub App

- Access to a user’s Copilot chat (read-only and required)
- Access to context (read-only and optional)

The anatomy of a Copilot Extension



Let’s Build!

Pull down this template repository

nickytonline/copilot-extension-template

copilot-extensions/preview-sdk.js

Getting Your Development Environment Set Up

Getting Your Development Environment Set Up

- Install the dependencies for the project
- Expose local development server to the Internet
- Create and configure a GitHub Application

Getting Your Development Environment Set Up

- Leverage the copilot-extensions/preview-sdk.js
- Debug extension

Wrapping Up

Wrapping Up

- Still early days for Copilot Extensions
- Expect a Cambrian explosion of Copilot extensions
- 2025 is the year or AI agents
- Go give nickytonline/copilot-extension-template a star
- Go build a GitHub Copilot extension!

Resources

Resources

- Official GitHub Copilot documentation
- nickytonline/copilot-extension-template
- Creating a GitHub Copilot Extension: A Step-by-Step Guide
- Building an Ollama-Powered GitHub Copilot Extension
- VS Code specific Copilot Extensions
- GitHub Open Source Spotlight: Building Copilot Extensions with Nick Taylor
- Building a Copilot skillset for your Copilot Extension
- Building a Copilot agent for your Copilot Extension
- GitHub Copilot: The agent awakens

Slide Deck

Feedback Form

nickyt.online

That’s all folks!

Thank you!

Stay in touch!

- @nickytonline everywhere
- nickyt.online