



# The World's Most Widely Adopted AI Developer Tool



Hi,  
I'm **Vicky.**

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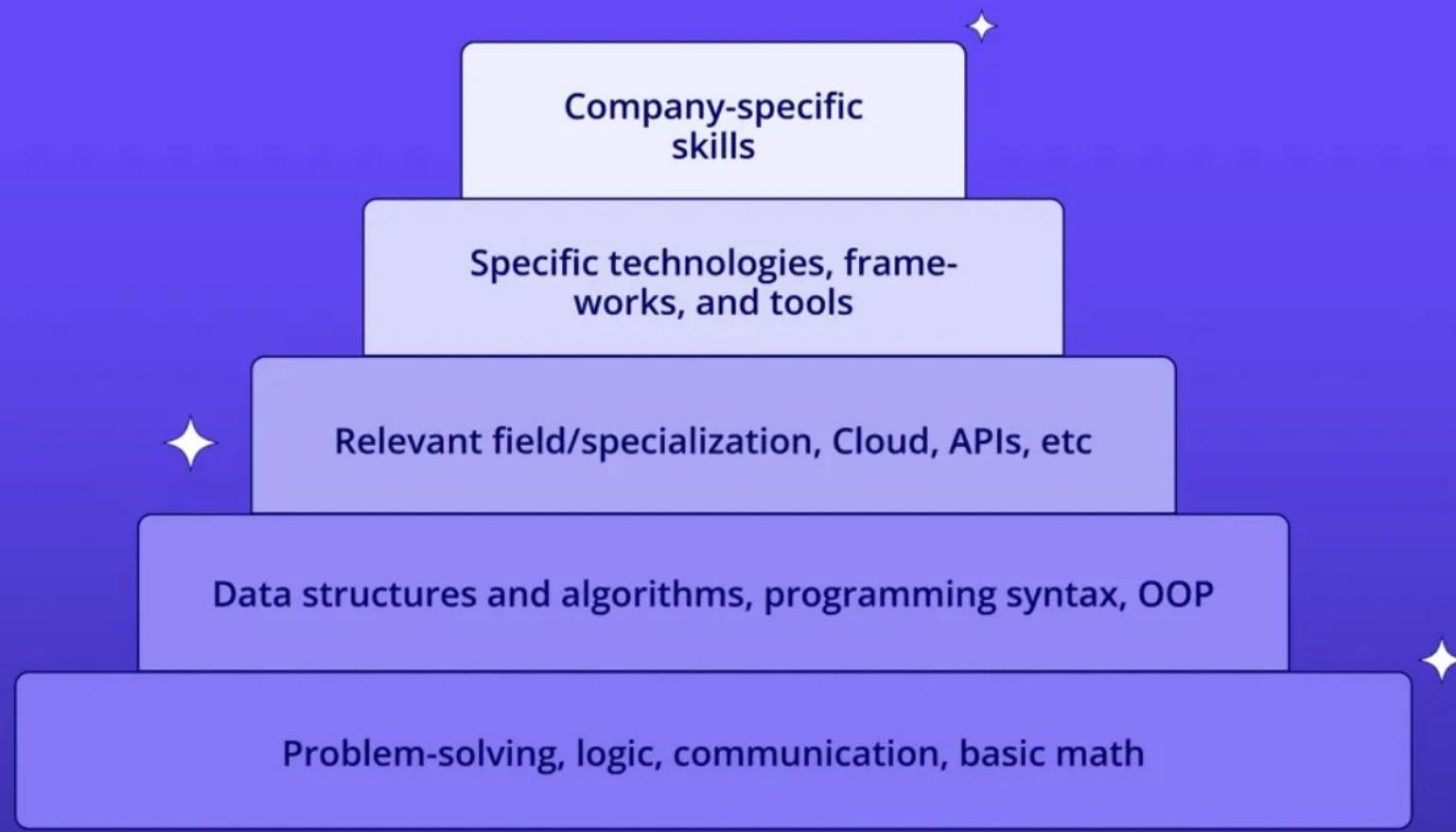
Vicky Israni

Sr. Solutions Engineer at GitHub |  
Technical Consulting | Pre-Sales





# THE DEVELOPER SKILL PYRAMID





# The Copilot effect.

The world's most widely adopted AI developer tool.

Maximize developer happiness

Increase developer productivity

Accelerate software development

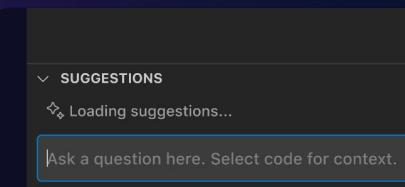
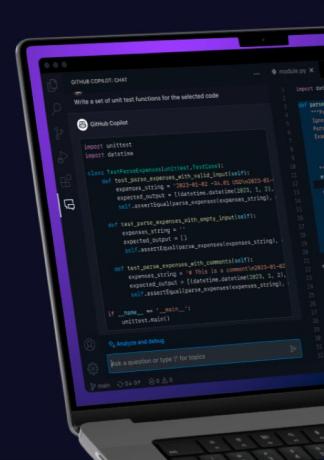


# 1st overall pick among developers.



75% of  
developers  
want to try it  
next year

55% of  
developers  
using AI coding  
tools choose  
GitHub Copilot



Copilot enables  
faster coding  
by 55%

75% of  
developers are  
more fulfilled



More than  
1.5M developers



# Pioneer in enterprise adoption of AI.

Over 1 in 5 Fortune 500 companies use Copilot  
( $<1$  yr since launch)



27,000+ businesses building software with Copilot

```
def test_parse_expenses_with_empty_input(self):
    expenses_string = ''
    expected_output = []
    self.assertEqual(parse_expenses(expenses_string), expected_output)

def test_parse_expenses_with_comments(self):
    expenses_string = '# This is a comment\n2023-01-02'
    expected_output = [(datetime.datetime(2023, 1, 2),
    self.assertEqual(parse_expenses(expenses_string), expected_output))

if __name__ == '__main__':
    unittest.main()
```

Analyze and debug

Ask a question or type '/' for topics





# GitHub Copilot

Offers code suggestions,  
contextualised to your project

Convert comments to code

Autofill for repetitive code

Show alternatives

```
1 #!/usr/bin/env ts-node
2
3 import { fetch } from "fetch-h2";
4
5 // Determine whether the sentiment of
6 // Use a web service
7 async function isPositive(text: string)
8   const response = await fetch(`http://
9     method: "POST",
10    body: `text=${text}`,
11    headers: {
12      "Content-Type": "application/x-www-form-urlencoded"
13    },
14  );
15  const json = await response.json();
16  return json.label === "pos";
17 }
```

Copilot



GitHub Copilot / AI-Powered SDLC

# An extension for the world's most popular code editors.

From the  
IDE and  
Terminal



To the  
Platform



# Developer productivity with Copilot means developers focus on what matters most.

✓ More time on

Designing

Brainstorming

Collaborating

Iterating

Planning

✗ Less time on

Writing Tests, Repetitive Code, & Boilerplate

Debugging

Searching Documentation

Finding Vulnerabilities

Deciphering Existing Code

Correcting Syntax

Summarizing Changes and Comments

Learning Git Commands



# Overview



A screenshot of a code editor interface, likely VS Code, showing a Python script named "lilly.py". The code uses the `Image` and `ImageDraw` modules to create a new image, paste text onto it, and draw shapes. The code includes imports for `Image`, `ImageFont`, and `ImageDraw`. It defines a function `juxtapose` that takes an image and text as parameters, creates a new image, pastes the original image, and draws text onto it.

```
translation = trans
assert translation == "Hello, world!"

def juxtapose(image, text):
    """Create a new image and make the new image
    display the text in the center.
    Display the text in black font.
    # Create a new image
    new_image = Image.new("RGB", (image.width + 200, image.height + 100))

    # Paste the original image
    new_image.paste(image, (0, 0))

    # Get a font
    font = ImageFont.truetype("arial.ttf", 40)

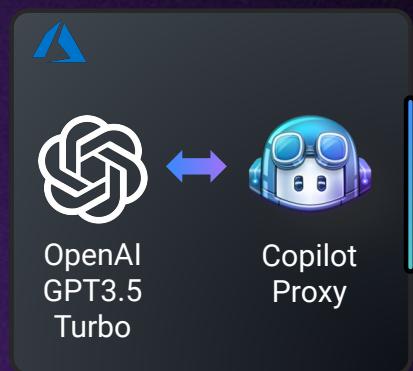
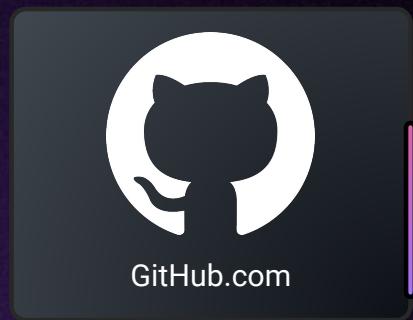
    # Get a drawing context
    draw = ImageDraw.Draw(new_image)

    # Draw text on the new image
    draw.text((new_image.width // 2, new_image.height // 2), text, font=font, fill="black")
```

The code editor also shows a terminal window with a traceback for an `ImportError` related to the `google.cloud` module. The status bar at the bottom indicates the environment is "Python 3.10.0 64-bit ('.venv': venv)" and there are 0 errors.

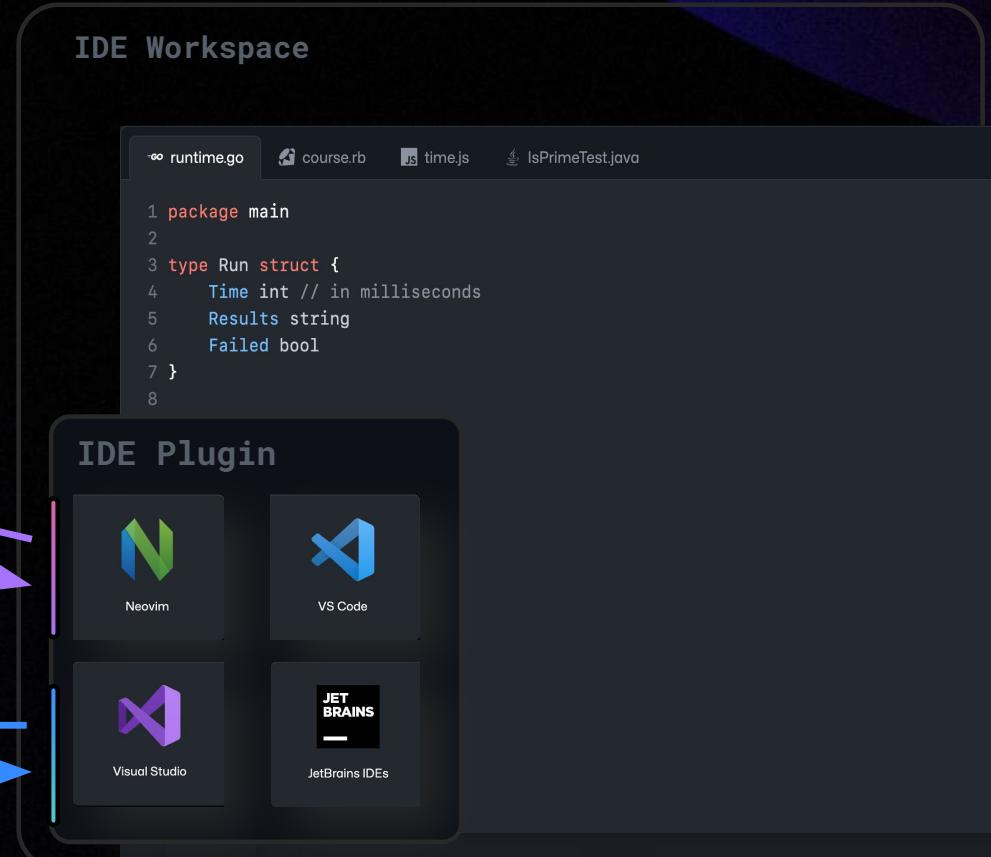


# Authentication



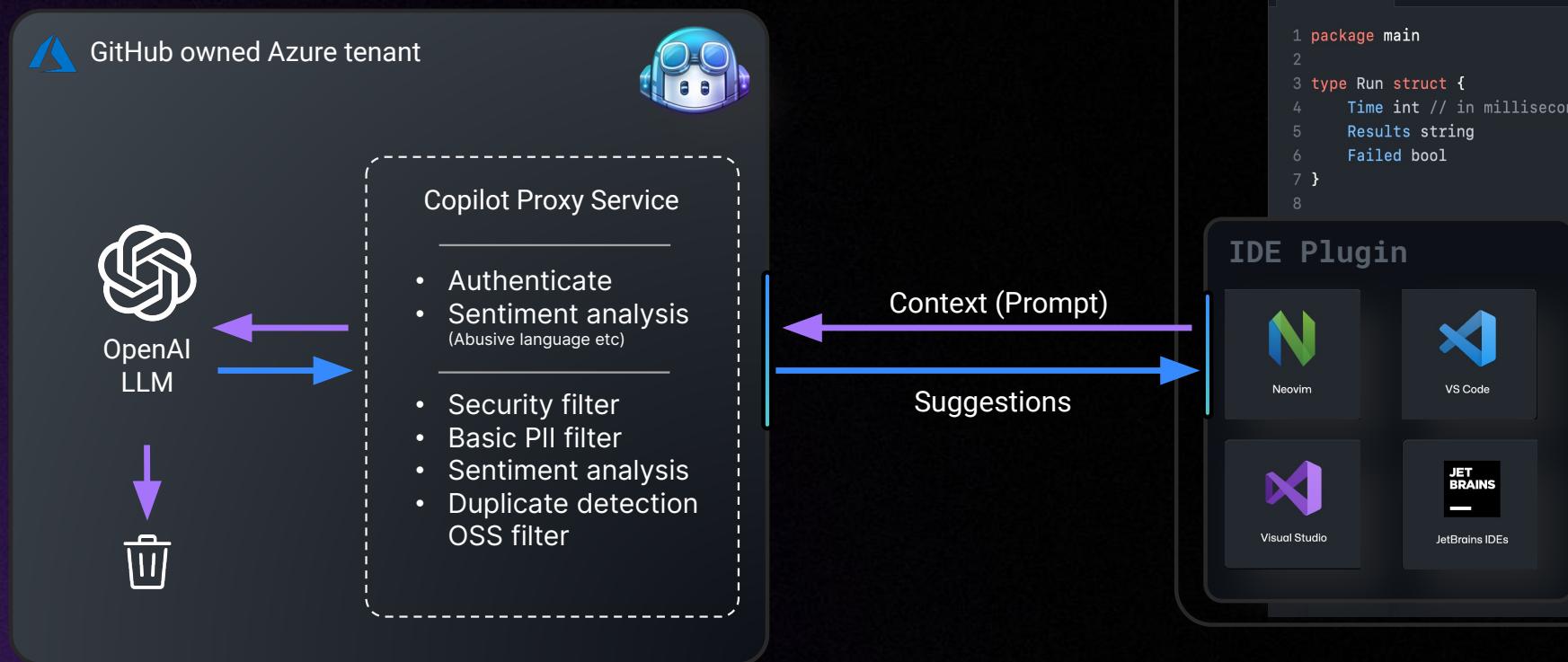
1. Auth & License Check  
2. Receive Copilot Token

3. Send Context (Prompt)  
4. Provide Suggestion(s)





# Data flow





**35%**

Suggestion acceptance rate

**46%**

New code written by Copilot



We recruited 95 developers  
and split them into two groups

We gave them a task to write a web server in Javascript

No Copilot

50

Developers

45



70%

Finished

78%

2 hrs 41 min

Average to complete task

1 hr 11 min

NOTE: This was done BEFORE Copilot included the CHAT capability



# DEMO

GitHub Copilot

# Copilot Chat

Improve code quality with contextual conversations.

## Generate unit tests

Copilot Chat can help write unit test cases by generating code snippets based on the existing code in the editor or the code snippet highlighted in the editor by the user.

## Propose code fixes

Copilot Chat can help propose a fix for bugs in your code by suggesting code snippets and solutions based on the context of the error or issue.

## Translate languages

Copilot Chat can help you translate code from one programming language to a different language.

## Explain code

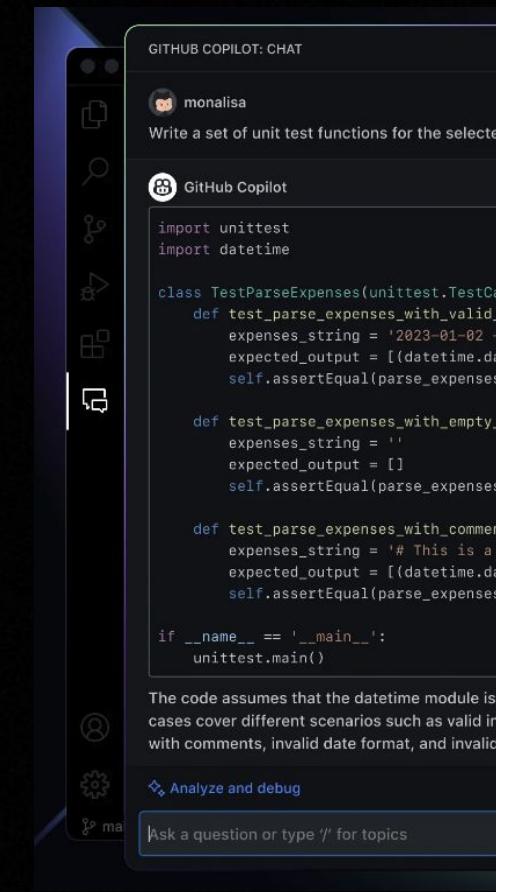
Copilot Chat can help explain selected code by generating natural language descriptions of the code's functionality and purpose.

## Answer coding questions

Copilot Chat allows you to ask for help or clarification on specific coding problems and receive responses in natural language format or in code snippet format.

## Increase readability

Copilot Chat can help you increase code readability by adding missing comments and suggesting such as better variable names.







**Suppose you're  
working with a  
travel agent to help  
plan a trip to  
Japan...**

A travel agent wouldn't be able to help you plan accordingly without the following information:

- Budget
- Origin
- Destinations
- Departure and return dates
- Preference of nonstop vs layovers

# Copilot Chat

Context-aware ChatGPT-styled conversations with Copilot

## Slash commands (Workspace agent)

- /explain → Explains how the selected code works
- /fix → Proposes a fix for the problems in the selected code
- /new → Create a new project based on a natural language description
- /newNotebook → Create a new Jupyter Notebook based on your description
- /terminal → Explain how to do something in the integrated terminal
- /tests → Generate unit tests for the selected code

## Slash commands (vscode agent)

- /api → Questions about VS Code extension development

## Slash commands

- /clear → Clear the session
- /help → General help about GitHub Copilot

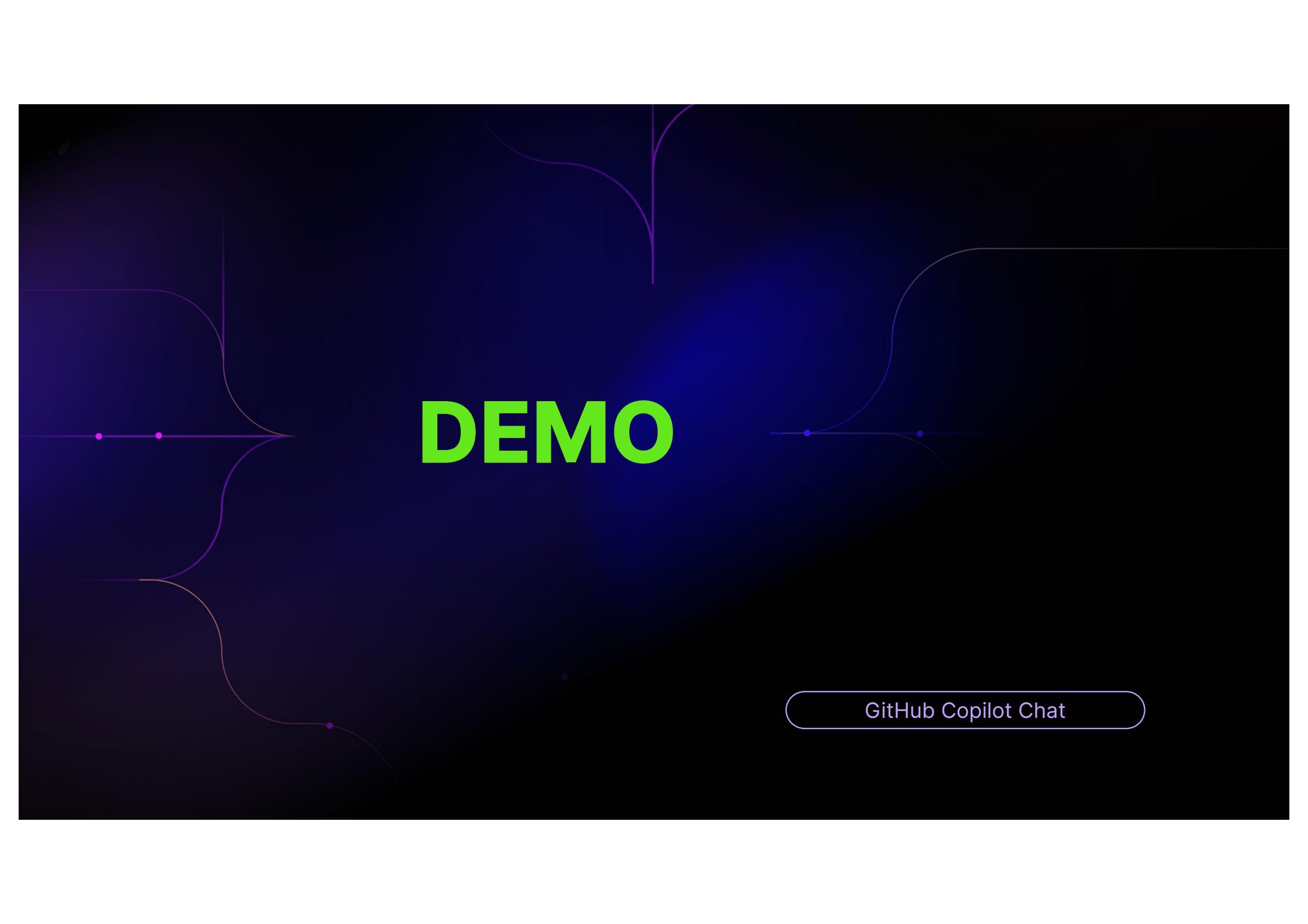
The screenshot shows the Visual Studio Code interface with the GitHub Copilot extension active. The top bar shows the file 'devcontainer.json' is open. The left sidebar has icons for copy, search, and GitHub Copilot. The main area displays a conversation with GitHub Copilot:

- GitHub Copilot:** Welcome @AnthonyBorton, I'm your Copilot and I'm here to help you get things done faster. I can identify issues, explain and even improve code.
- You can ask generic questions, but what I'm really good at is helping you with your code. For example:**

  - Generate unit tests for my code
  - Explain the selected code
  - Propose a fix for the bugs in my code

- If you want to learn more about my capabilities and limitations, [check out the Copilot documentation](#).
- I'm powered by AI, so surprises and mistakes are possible. Make sure to verify any generated code or suggestions, and [share feedback](#) so that we can learn and improve.

At the bottom, there's a text input field: "Ask Copilot a question or type '/' for topics" with a send button. Status bar at the bottom: Ln 1, Col 1 | Tab Size: 4 | UTF-8 | CRLF | {} |



# DEMO

GitHub Copilot Chat