



More code, less effort

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GitHub Copilot

Your AI pair programmer

**Uses the context you've provided
and synthesizes code to match**

Convert comments to code

Autofill for repetitive code

Streamline test creation

Show alternatives

```
sentiment.ts  write_sql.go  parse_expens...
```

```
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-w
13    },
14  });
15   const json = await response.json();
16   return json.label === "pos";
17 }
```

Copilot

GitHub Copilot



```
33 translation = transl  
34 assert translation =  
35  
36  
37 def juxtapose(image, text  
38     """create a new imag  
39     Make the new image t  
40     Display the text in  
41     # create a new image  
42     new_image = Image.ne  
43  
44     # paste the original  
45     new_image.paste(imag  
46  
47     # get a font  
48     font = ImageFont.tru  
49  
50     # get a drawing cont  
51     draw = ImageDraw.Dra  
52
```

PROBLEMS OUTPUT COMMENTS

```
ryanjsalva in ~/Code/copilot_de  
$ source /Users/ryanjsalva/Cod  
  
ryanjsalva in ~/Code/copilot_de  
$ /Users/ryanjsalva/Code/copil  
Traceback (most recent call las  
File "/Users/ryanjsalva/Code/  
from google.cloud import tr  
ImportError: cannot import name  
  
ryanjsalva in ~/Code/copilot_de  
$
```

Python 3.10.0 64-bit ('.venv': venv)



Extensions for popular editors



Visual Studio Code



Visual Studio



All JetBrains IDEs

IntelliJ IDEA, WebStorm, PyCharm, Rider, etc.



neovim



Demo



GitHub Copilot

 We recruited **95** developers , and split them randomly into two groups.

We gave them a task of writing a web server in JavaScript

 **45**
Used Copilot

 **78%**
Finished

 **1hr 11min**
Average to complete the task

 **50**
Did not use Copilot

 **70%**
Finished

 **2hrs 41min**
Average to complete the task





GitHub Copilot

Once enabled...

40%

of new code
written with Copilot

75%

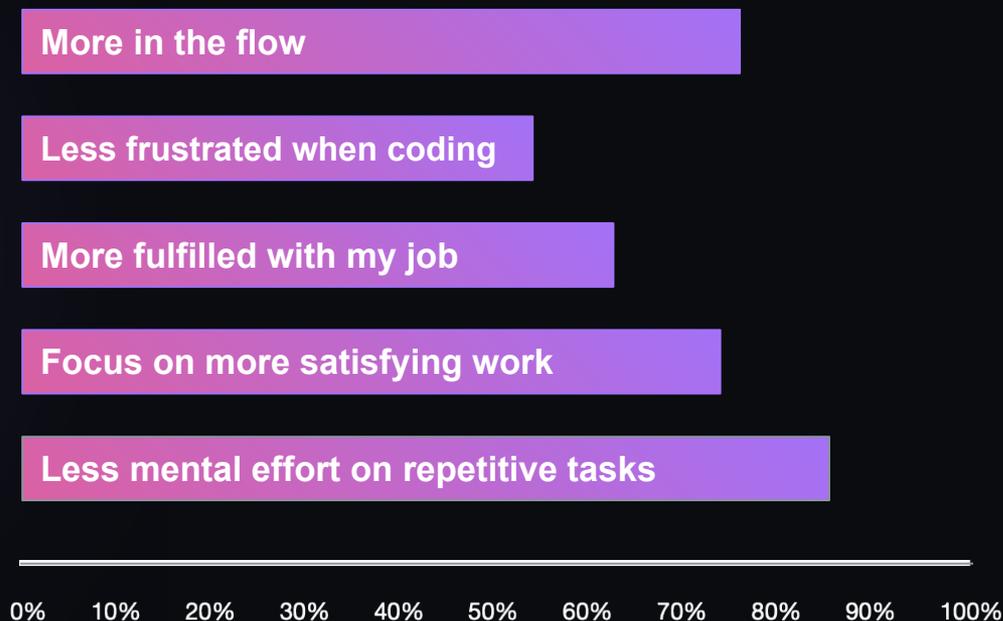
of developers
felt more fulfilled
with their jobs

TS sentiment.ts write_sql.go parse_expense

```
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Copilot

Developers are finding joy with Copilot



Q&A



