



# AI Coding Agent with GitHub Copilot

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Search

Chat

Agents

Researcher

## Microsoft vs Apple Stock Performance Comparison

Work

Web

GPT-5 On



...

You are using Copilot with GPT-5. [Learn more.](#)

Today

Compare the historical stock performance of Microsoft and Apple over the past five years. Include a visual representation of their price

Compare the historical stock performance of Microsoft and Apple over the past five years. Include a visual representation of their price trends and highlight any notable differences or patterns.



All agents

Create agent

Conversations

Pages

Notebooks

Create

Apps

OneNote

SharePoint

OneDrive

Hope Tembhum Chaiw...

...

- ✓ Deciding how to collect and present data >
- ✓ Searching for stock return data >
- ✓ Searching >
- ✓ Looking for Apple data >
- ✓ Searching >
- ✓ Validating return data >
- ✓ Searching >
- ✓ Considering data sourcing options >
- ✓ Searching >

Message Copilot

+



Tools





GitHub Copilot

150M+

Developers

4M+

Organizations

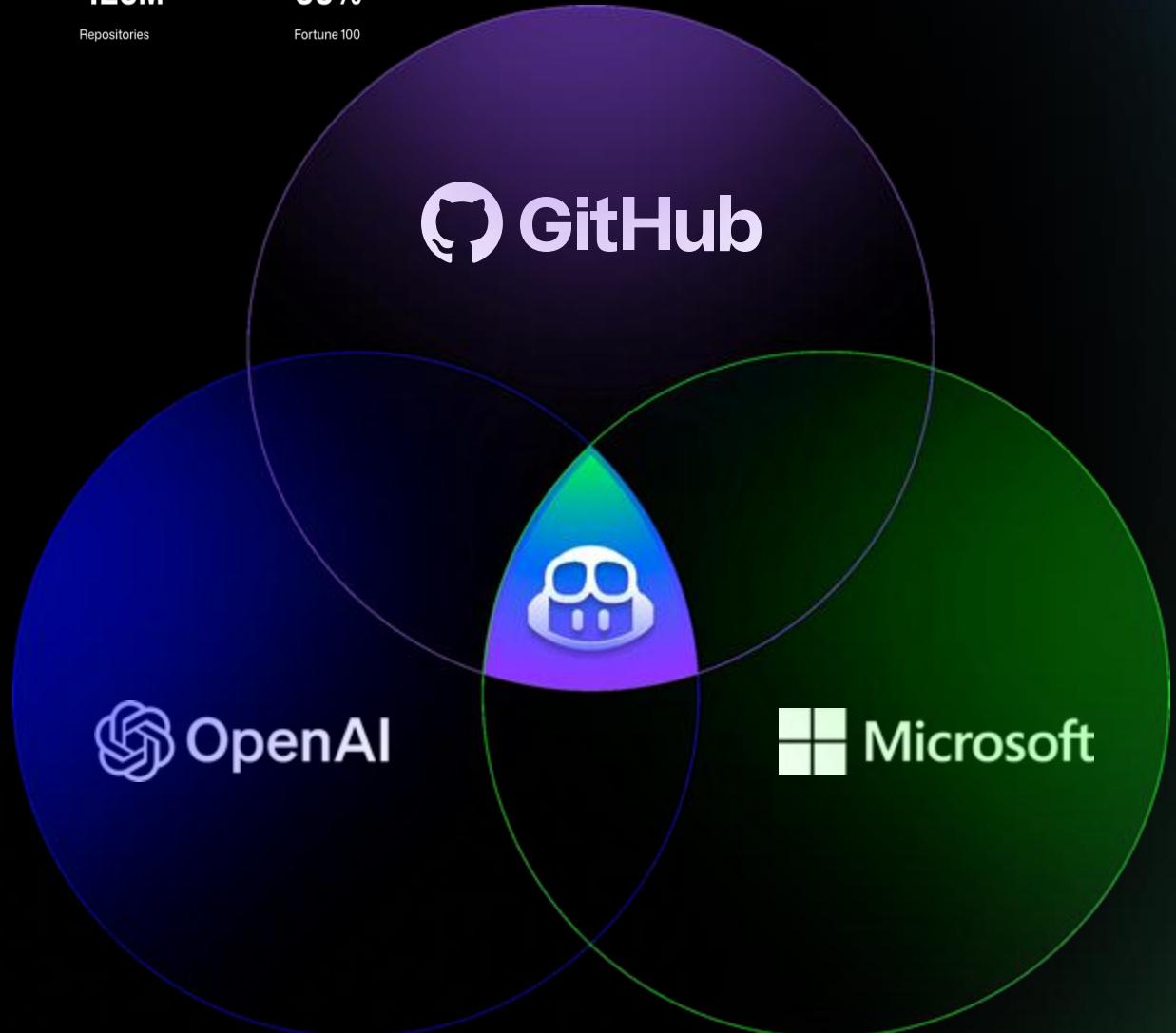
420M+

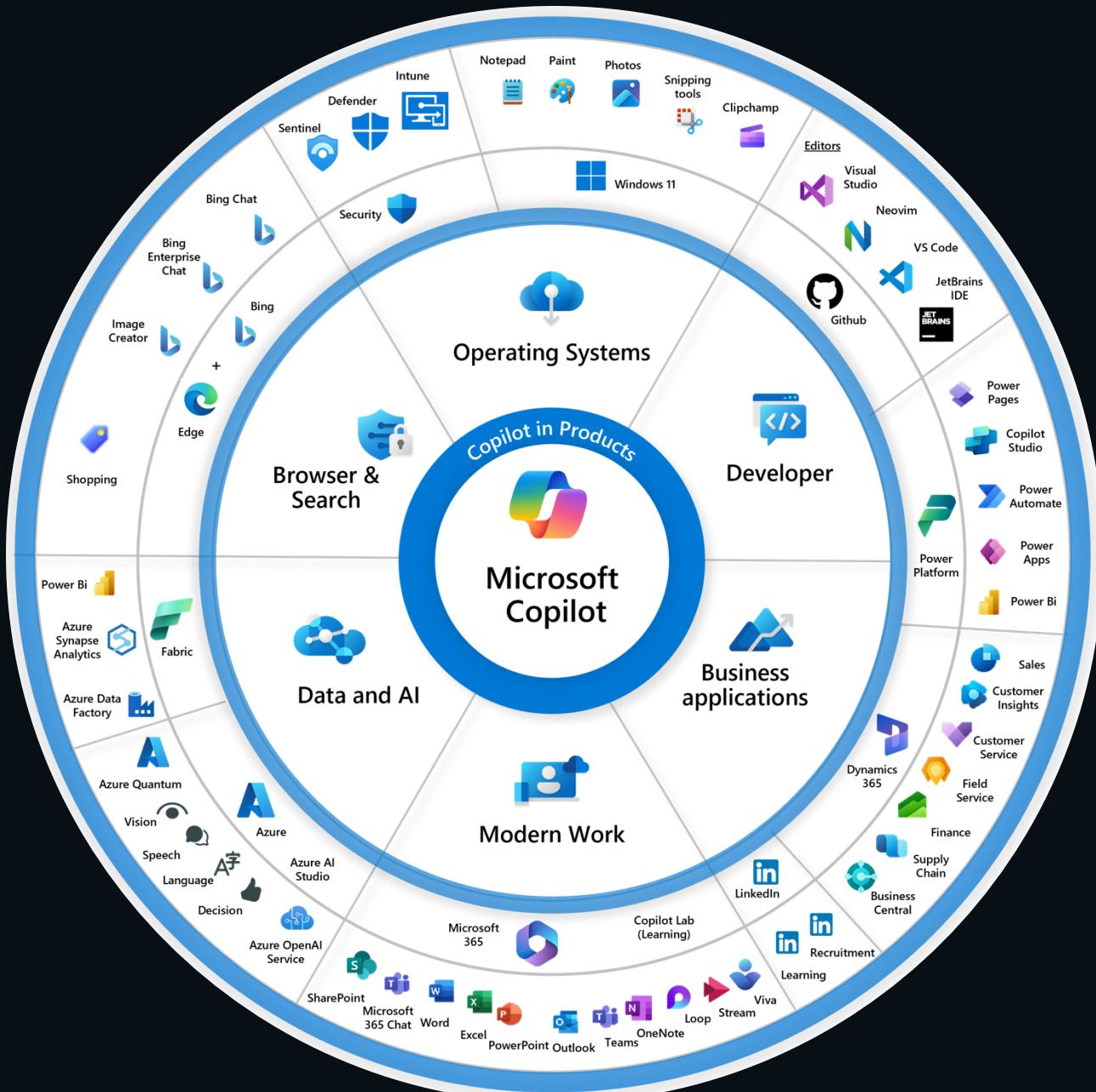
Repositories

90%

Fortune 100

# Infrastructure, meet Innovation

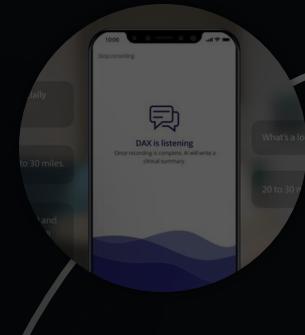






# Copilot

## Industry-specific Dragon Copilot



## Security operations Security Copilot



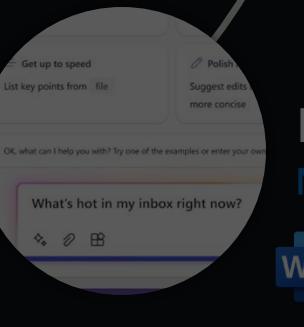
## Sales Sales Copilot



## Software developers GitHub Copilot



## Domain Expert Copilot in Power Platform



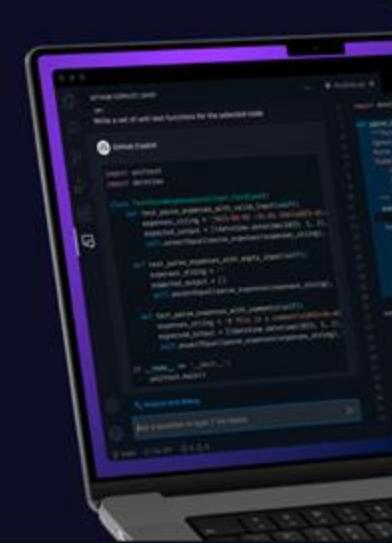
## Knowledge workers Microsoft 365 Copilot



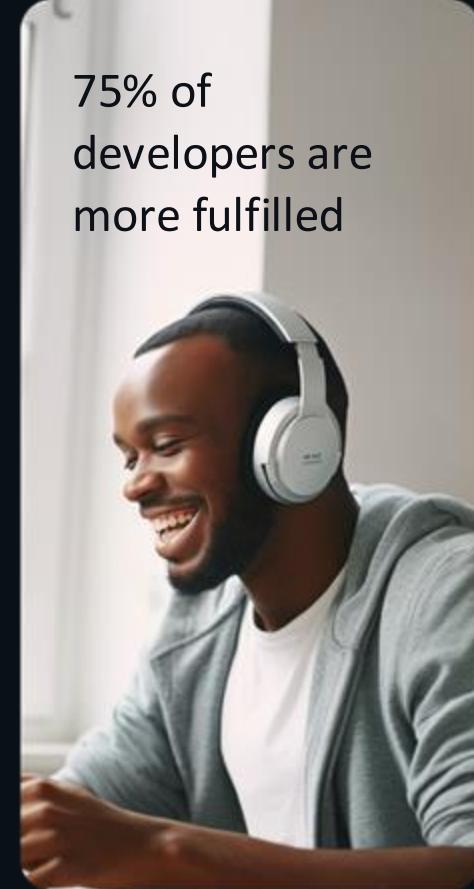
# What is GitHub Copilot

**GitHub Copilot** is an AI coding assistant that helps developers write code faster and with less effort, allowing them to focus more energy on problem solving and collaboration.

55% of developers using AI coding tools choose GitHub Copilot



Copilot enables faster coding by 55%

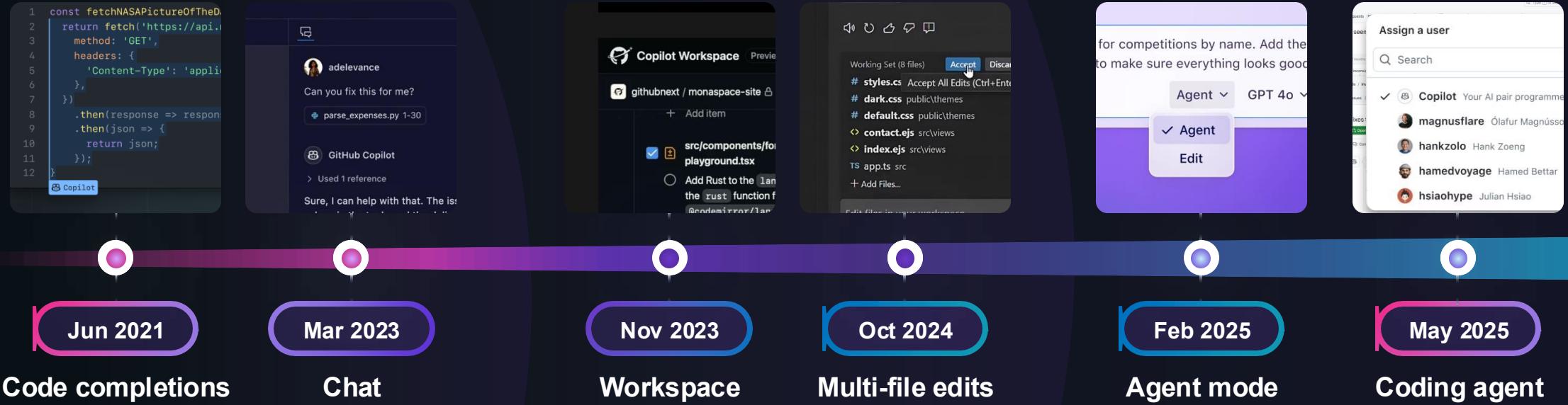


75% of developers are more fulfilled

More than  
**1.8M paid users**



# Evolution of GitHub Copilot



# Vibe Coding ?



Andrej Karpathy ✅

@karpathy



...

There's a new kind of coding I call "vibe coding", where you fully give in to the vibes, embrace exponentials, and forget that the code even exists. It's possible because the LLMs (e.g. Cursor Composer w Sonnet) are getting too good. Also I just talk to Composer with SuperWhisper so I barely even touch the keyboard. I ask for the dumbest things like "decrease the padding on the sidebar by half" because I'm too lazy to find it. I "Accept All" always, I don't read the diffs anymore. When I get error messages I just copy paste them in with no comment, usually that fixes it. The code grows beyond my usual comprehension, I'd have to really read through it for a while. Sometimes the LLMs can't fix a bug so I just work around it or ask for random changes until it goes away. It's not too bad for throwaway weekend projects, but still quite amusing. I'm building a project or webapp, but it's not really coding - I just see stuff, say stuff, run stuff, and copy paste stuff, and it mostly works.

4:17 PM · Feb 2, 2025 · 4.4M Views

# Who is Vibe Coding for?

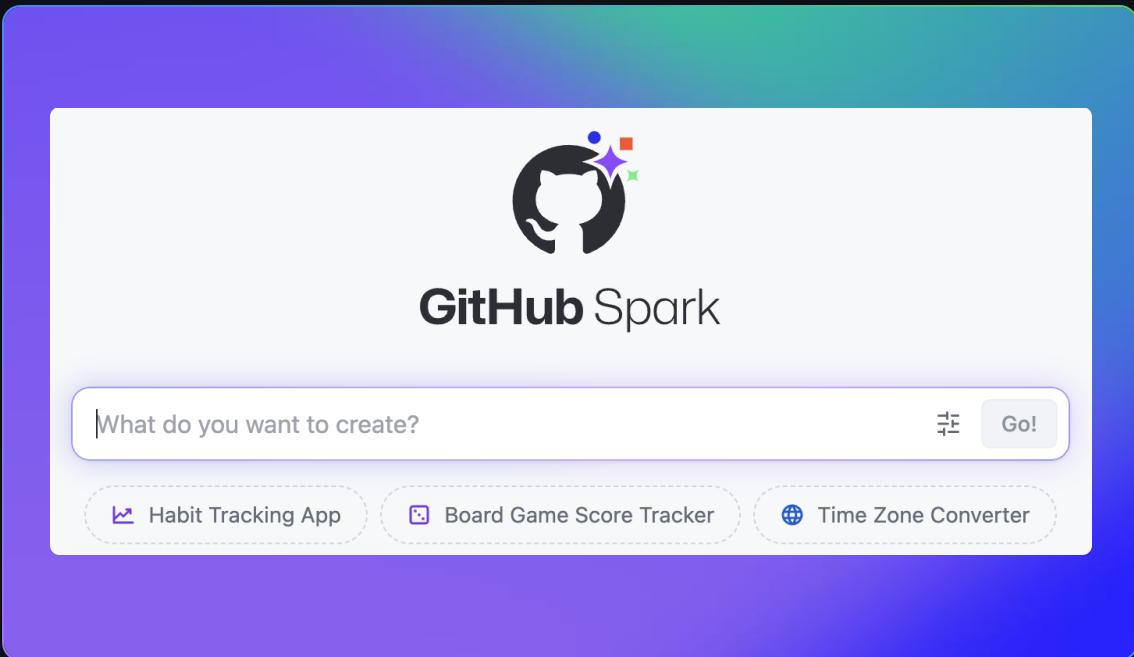
Builders



Individuals  
with Ideas

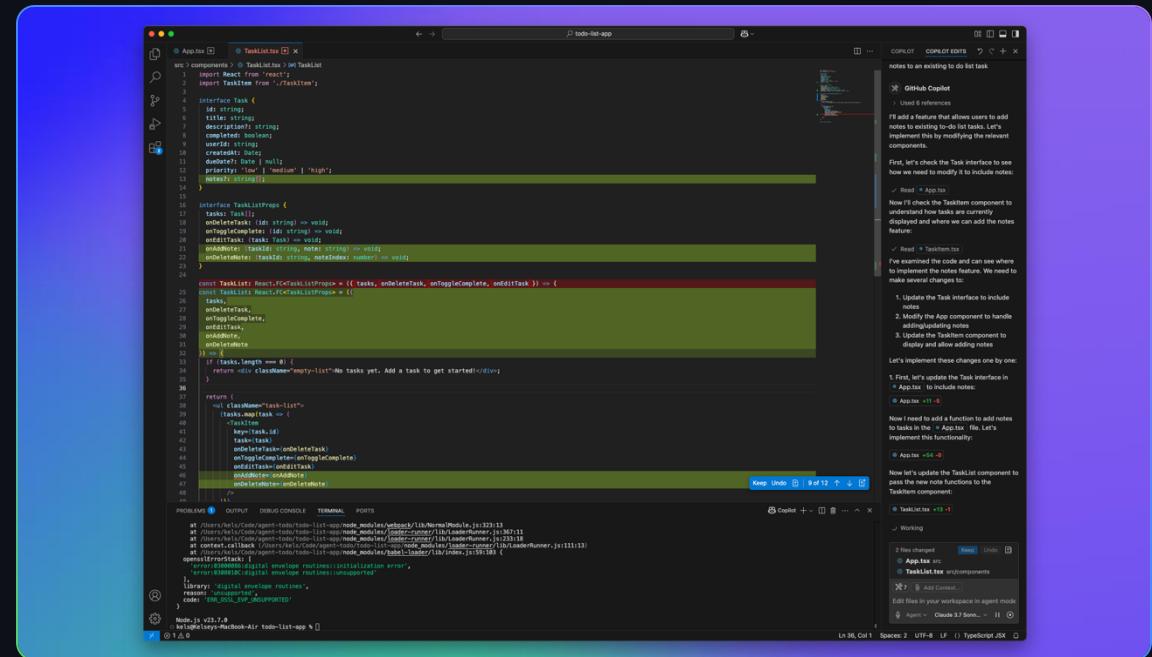
Professional  
Developers

## Vibe Coding in Github



## GitHub Spark

Rich GUI based, AI-powered workbench  
Focused on web apps & opinionated runtime



## Copilot Agent Mode

Accessible in VS Code & Codespaces  
Full control over the stack and app types you can create



## Visual Studio Family

50+ million monthly  
active developers



## GitHub

150 million developers  
worldwide



The GitHub Copilot Free logo is centered on a dark, abstract background. It features a white icon of two overlapping semi-circles forming a stylized 'C' or 'G' shape, positioned to the left of the text "GitHub Copilot Free". The text is in a bold, white, sans-serif font.

GitHub Copilot Free

The screenshot shows a dark-themed IDE interface with the following components:

- EXPLORER** (left sidebar): Shows a tree view of the project structure under "GITHUB-FREETIER". The "diabetes.csv" file is selected.
- diabetes.csv** (center editor): Displays the contents of the CSV file. The first few rows are:

```
1 Pregnancies,Glucose,BloodPressure,SkinThickness,Insulin,BMI,  
DiabetesPedigreeFunction,Age,Outcome  
2 6,148,72,35,0,33.6,0.627,50,1  
3 1,85,66,29,0,26.6,0.351,31,0  
4 8,183,64,0,0,23.3,0.672,32,1  
5 1,89,66,23,94,28.1,0.167,21,0  
6 0,137,40,35,168,43.1,2.288,33,1  
7 5,116,74,0,0,25.6,0.201,30,0  
8 3,78,50,32,88,31,0.248,26,1  
9 10,115,0,0,0,35.3,0.134,29,0  
10 2,197,70,45,543,30.5,0.158,53,1  
11 8,125,96,0,0,0,0.232,54,1  
12 4,110,92,0,0,37.6,0.191,30,0  
13 10,168,74,0,0,38,0.537,34,1  
14 10,139,80,0,0,27.1,1.441,57,0  
15 1,189,60,23,846,30.1,0.398,59,1  
16 5,166,72,19,175,25.8,0.587,51,1  
17 7,100,0,0,0,30,0.484,32,1  
18 0,118,84,47,230,45.8,0.551,31,1  
19 7,107,74,0,0,29.6,0.254,31,1  
20 1,103,30,38,83,43.3,0.183,33,0  
21 1,115,70,30,96,34.6,0.529,32,1  
22 3,126,88,41,235,39.3,0.704,27,0  
23 8,99,84,0,0,35.4,0.388,50,0  
24 7,196,90,0,0,39.8,0.451,41,1  
25 9,119,80,35,0,29,0.263,29,1  
26 11,143,94,33,146,36.6,0.254,51,1  
27 10,125,70,26,115,31.1,0.205,41,1  
28 7,147,76,0,0,39.4,0.257,43,1  
29 1,97,66,15,140,23.2,0.487,22,0  
30 13,145,82,19,110,22.2,0.245,57,0  
31 5,117,92,0,0,34.1,0.337,38,0  
32 5,109,75,26,0,36,0.546,60,0  
33 3,158,76,36,245,31.6,0.851,28,1  
34 3,88,58,11,54,24.8,0.267,22,0
```
- CHAT** (right sidebar): A section titled "Build with agent mode" with a note that AI responses may be inaccurate. It includes a button to "Generate Agent Instructions" and a message input field.
- Floating Terminal** (bottom right): A terminal window titled "diabetes.csv" with an AI interface. It shows a command prompt and a message input field.

The screenshot shows a Jupyter Notebook interface with the following details:

- Top Bar:** Includes back/forward buttons, a search bar with the text "github-freetier", and system status icons.
- Left Sidebar (EXPLORER):** Shows a project structure under "GITHUB-FREETIER": "ghcp-data-science-python" contains "diabetes.csv" and "README.md". A "1" icon is present in the top-left corner of this sidebar.
- Central Area:** The main workspace displays two files: "diabetes.csv" and "Untitled-1.ipynb". The "Untitled-1.ipynb" tab is active. Below the tabs are buttons for "Generate", "Code", "Markdown", "Run All", and "Select Kernel".
- Right Area (CHAT):** A large text box contains a generated script for a new notebook named "Diabetes 1". The script includes instructions for building a decision tree classifier. A scroll bar is visible on the right side of this area.
- Bottom Bar:** Shows tabs for "diabetes.csv" and "Untitled-1.ipynb", followed by a list of steps for the project. The bottom right corner features a language model interface with "Agent" set to "Claude Sonnet 4".



github-freetier

EXPLORER

GITHUB-FREETIER

.venv

ghcp-data-science...

diabetes-tree-anal...

diabetes.csv

README.md

diabetes-tree-analysis.ipynb X diabetes-tree-analysis.ipynb (changes from GitHub)

diabetes-tree-analysis.ipynb (changes from GitHub) Diabetes Tree Classifier 1. Import Required Libraries

Generate + Code + Markdown Run All Restart ... .venv (Python 3.12.12)

- ชุดข้อมูล: diabetes.csv จากผู้หญิงชาว Pima Indians
- จำนวนผู้ป่วย: 768 คน
- ตัวแปร: 8 ปัจจัยเสี่ยง + 1 ผลการวินิจฉัย
- เครื่องมือ: Python, Pandas, Scikit-learn, Matplotlib

## 🚀 สิ่งที่จะได้เรียนรู้

- การวิเคราะห์ข้อมูลด้วย Python
- การสร้างโมเดล Machine Learning
- การประเมินประสิทธิภาพโมเดล
- การแสดงผลด้วยกราฟและภาพ
- การตีความผลลัพธ์ทางการแพทย์

### 1. Import Required Libraries

#### 💡 ทำไมต้องทำขั้นตอนนี้?

เราต้อง "นำเข้า" เครื่องมือต่างๆ ที่จำเป็นสำหรับการทำงาน หนึ่งในนั้นคือการเตรียมอุปกรณ์ก่อนทำงาน เราต้องมีดี ทั้งหมด กระะ เป็นต้น

#### 💻 เครื่องมือที่เราจะใช้:

- Pandas: สำหรับอ่านและจัดการข้อมูล (เหมือน Excel แต่ใช้โค้ด)
- NumPy: สำหรับคำนวณทางคณิตศาสตร์ที่ซับซ้อน
- Scikit-learn: ชุดเครื่องมือสำหรับสร้างโมเดล AI/Machine Learning
- Matplotlib & Seaborn: สำหรับสร้างกราฟและภาพแสดงผล

CHAT

- Import libraries สำเร็จ
- โหลดข้อมูล diabetes.csv สำเร็จ
- แสดงข้อมูล 5 แถวแรกได้
- Notebook kernel ทำงานปกติ

⚡️ วิธีใช้งาน:

- ใช้งานใน Notebook (แนะนำ):
  - เพียงแคร์รันเซลล์ตามลำดับ - ทุกอย่างพร้อมใช้แล้ว!
- ใช้งานใน Terminal:

```
# แทนที่จะใช้ python  
/Users/lalalandhope/Documents/github/github-freetier  
  
# หรือ activate virtual environment และใช้ python ตรงsource /Users/lalalandhope/Documents/github/github-freetier  
python your_script.py
```

📌 พร้อมแล้ว!

ตอนนี้คุณสามารถรันโปรเจกต์ "Diabetes Tree Classifier" ได้เต็มที่แล้ว! เชลล์ทั้งหมดในโน๊ตบุ๊กจะทำงานได้อย่างสมบูรณ์

ต้องการให้ฉันช่วยรันเซลล์ดังไปหรือมีคำแนะนำอื่นๆ ไหมครับ?

Claude Sonnet 4 · 1x

Redo Checkpoint Restored

diabetes-tree-analysis.ipynb • Cell 2 +

ช่วยรันเซลล์ดังไปทั้งหมด

Agent Claude Sonnet 4

Spaces: 4 Cell 2 of 30 ✓ Prettier

# Let's build from here





OpenAI GPT-4o  
Azure OpenAI Service



Phi-3 medium instruct (128K)  
Microsoft



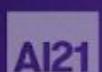
Meta-Llama-3.1-405B-Instruct  
Meta

Introducing

# GitHub Models



Cohere Command R+  
Cohere



AI21-Jamba-Instruct  
AI21 Labs



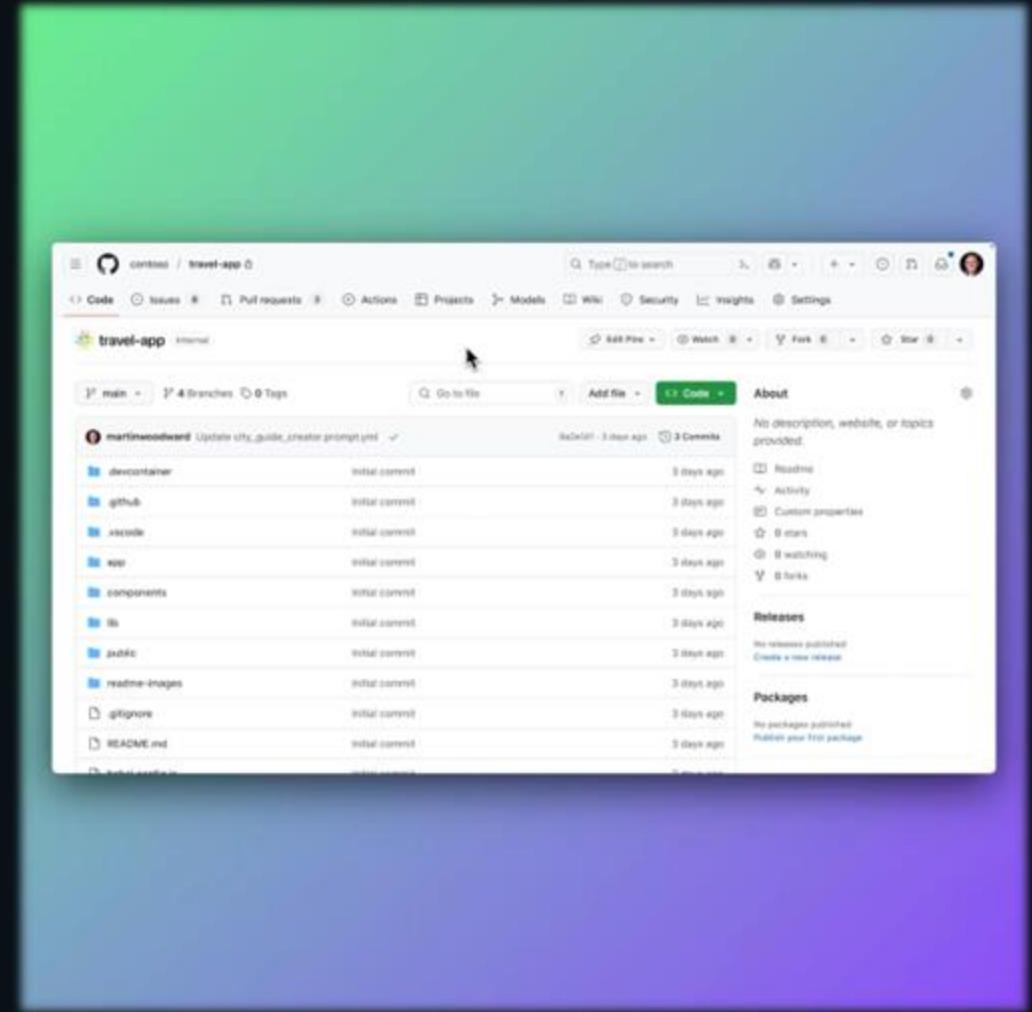
Mistral Large (2407)  
Mistral AI

# GitHub Models

AI development natively embedded in the GitHub workflow

Public Preview

- Bring AI for your applications within the context of your repos
  
- Enable prompts as code approach for collaboration and automation
  
- Extend AI across the software lifecycle through commit, pull request, AI-driven GitHub Actions and more
  
- Side-by-side evaluation of a curated list of top Azure AI Foundry Models right within GitHub



File Edit Selection View Go ... ← → workspace [Dev Container: Python 3.13 with PostgreSQL @ desktop-linux] 0% □□□□ - □ ×

AI TOOLKIT ... Model Catalog Agent Builder X

MY RESOURCES > Models + ⓘ > Agents > MCP Servers

MODEL TOOLS Model Catalog Model Playground Conversion (Preview) Fine-tuning

AGENT AND WORKFLOW TOOLS Agent Builder Bulk Run Evaluation

MCP WORKFLOW + Add MCP Server + Create New MCP Server

BUILDER + New Agent

BASIC INFORMATION Agent name \* New Agent 2025091721 Model \* OpenAI GPT-4.1 (via GitHub)

Instructions ⓘ Generate Give your agent clear directions on what to do and how to do it. Include specific tasks, their order, and any special instructions like tone or engagement style.

VARIABLES ⓘ

Playground Evaluation

Get Started with Examples

Creating, iterating, and optimizing your prompts.

Web Scraper With MCP Server Navigate to websites, take screenshots, and summarize content using browser automation.

Second-Grade Simplifier Make complex text easy for young learners to understand.

Dream Interpreter Offer interpretations and insights into the symbolism of the user's dreams.

Type a message. Enter to submit and Shift + Enter for new line

Dev Container: Python 3.13 with PostgreSQL @ desktop-linux main ⌂ 0 0 2



Agent Builder X



BUILDER

+ New Agent



## ▼ BASIC INFORMATION



Agent name \*

Cora



Model \*

OpenAI GPT-4.1 (via GitHub)



Instructions ⓘ

❖ Improve



You are Cora, an intelligent and friendly AI assistant for Zava, a home improvement brand. You help customers with their DIY projects by understanding their needs and recommending the most suitable {{product}} from Zava's catalog.



Your role is to:

- Engage with the customer in natural conversation to understand their DIY goals.

- Ask thoughtful questions to gather relevant project details.



Playground

Evaluation



- **Easy to Clean:** Eggshell finish provides a smooth, subtle sheen that's more durable and washable than matte paints, making it ideal for living spaces with moderate traffic.
- **Versatility:** Works well on various surfaces, including walls and woodwork, complementing both modern and traditional interiors.
- **Aesthetic:** Its light-reflecting quality adds brightness, perfect for enhancing natural light in your room.

**Product Details:**

- **Category:** Paint & Finishes
- **Price:** \$65.67
- **Stock:** Available

This paint will help to bring a soft, sophisticated look to your space while being easy to care for. If you have any other questions or need more details, feel free to ask!

Type a message. Enter to submit and Shift + Enter for new line



**Cora**

Your DIY project guide—powered by Zava.

**Cora**

Hello! I'm Cora, your AI assistant for Zava home improvement. I can help you with DIY projects and product recommendations. You can also upload images of your project for better assistance!

Type your message...





**GitHub Spark**

