



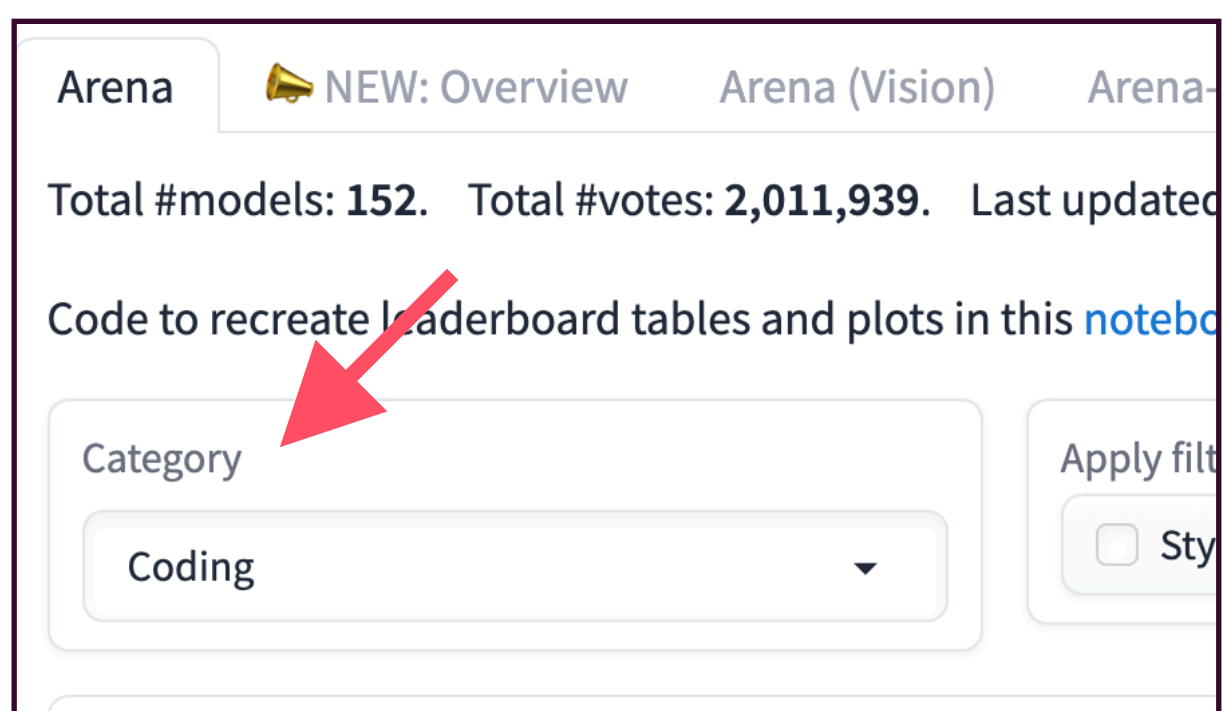
## RESOURCES

### Coding Model Alternatives

ChatGPT isn't the only option out there. While it's one of the top models for generating code, there are other strong contenders. The best part? They're easy to find!

- The Chatbot Arena LLM Leaderboard, developed and maintained by teams at UC Berkeley, is an open-source platform designed to evaluate AI models based on human preferences. Users ask questions to two models (either randomly selected or specifically chosen) and then rate which one performed better. With over 2,000,000 votes collected, it offers valuable insights into model performance. You can check out the leaderboard [here](#).

Select the "Coding" category to see which models come out on top.



- The HumanEval Leaderboard, developed by OpenAI, evaluates models' ability to solve coding problems using the HumanEval benchmark. Maintained by "Papers with Code," this leaderboard ranks various coding assistants based on their HumanEval scores. You can explore the leaderboard [here](#).

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## Integrated Development Environments and AI

All the cool kids are using Visual Studio Code. Okay, that's not actually true, but VS Code is a hugely popular integrated development environment (IDE) that Microsoft offers for free. You can learn more about it and download your own copy [here](#).

One of VS Code's standout features is its support for extensions. Here are some that offer AI-powered assistance for coding:

- Developed by GitHub and OpenAI, [GitHub Copilot](#) (not to be confused with [Microsoft's Copilot](#) chatbot) is an “AI coding assistant” designed to help you write code faster and with less effort, allowing you to focus more on problem-solving and collaboration. Learn more about VS Code's GitHub Copilot extension [here](#), and don't miss the impressive demo video!
- [Codeium](#) is a free code completion model similar to GitHub Copilot. It offers both autocomplete and chat-based modes, and it analyzes your entire project to provide relevant suggestions. Check out its highly-regarded VS Code extension [here](#).
- Formerly CodiumAI (with no relation to the Codeium listed above), [Qodo](#) specializes in code generation with a focus on integrity. It generates tests to help you understand how your code behaves, identifies edge cases, and strengthens your code's robustness. Available in both free and paid tiers, you can learn how to install its VS Code extension [here](#).
- [Tabnine](#) supports all phases of software development, from design to deployment and maintenance. It guarantees that its models aren't trained on proprietary data. Find installation instructions for its VS Code extension [here](#).
- Other AI coding assistants with VS Code extensions include [Cody](#) and [Pythagora](#).

An IDE is an application that offers tools for writing, debugging, running, and deploying code. IDLE, included with the standard Python installation, is a basic example of an IDE. More advanced IDEs, such as [Visual Studio](#), Visual Studio Code, [Eclipse](#), and [IntelliJ IDEA](#), come with a wide range of features. Be sure to explore their documentation to learn how they integrate AI tools.

GitHub Copilot is a [paid service](#), but you can get a free trial. As of this writing, GitHub offers it free for verified students.

## RESOURCES

## Cursor AI

Unlike VS Code and other IDEs that add AI through extensions, [Cursor](#) has AI built directly into the IDE. Since it's based on VS Code, it maintains the same familiar interface, but its deeper AI integration allows for greater customization, potentially improving developer workflows. You can explore its capabilities [here](#), and find details about its free and paid options [here](#).

Cursor and Windsurf, below, are currently the most popular AI IDEs for experienced developers.

## Windsurf Editor

[Windsurf Editor](#) by Codeium is an AI-powered IDE designed to enhance developer productivity through seamless AI integration. Unlike traditional IDEs that incorporate AI via extensions, Windsurf is a standalone application built on a fork of VS Code, offering a familiar interface with advanced AI capabilities. This deep integration allows for greater customization and efficiency in developer workflows.

## Replit

[Replit](#) is a cloud-based IDE that also offers hosting for web-based applications. The company recently introduced [Replit Agent](#), an AI tool that responds to natural language prompts and can build complete web apps. While it's not yet available for general release, Replit Agent aims to automate significant portions of the software development process across all phases.

Cloud-based apps are applications hosted on the internet, allowing users to access them without needing to install anything on their personal devices.

## Bolt

[Bolt](#) is a developer tool designed to simplify the creation of web applications, with a focus on front-end development. Unlike traditional IDEs that may require significant coding experience, Bolt enables developers with less technical expertise to quickly build functional apps. Its intuitive, user-friendly interface and built-in templates make it particularly powerful for front-end projects.

Bolt is ideal for those looking to streamline the development process without deep coding knowledge, allowing for rapid deployment and efficient iteration.

# Lovable

Lovable is a developer tool designed to simplify the process of building full-stack web applications, especially for those with less coding experience. With its intuitive interface and user-friendly features, Lovable allows developers to focus on building rather than getting bogged down by complex configurations.

While it still offers powerful tools for more experienced developers, Lovable’s accessibility makes it a great choice for beginners and those looking to create apps quickly and easily.