

Leveraging AI as a Coding Assistant

Available AI Coding Assistants

- GitHub Copilot <https://copilot.github.com/>
- Tabnine <https://www.tabnine.com/>

What is AI Coding Assistant?

- Coding assistants are tools that help developers write code faster and more efficiently.
- They are powered by AI and machine learning.
- It suggests code as you type based on patterns learned from public code repositories.

Benefits of AI Coding Assistant

- Speeds up the coding process
- Provides suggestions for complex code snippets
- Learns from your coding style over time

Limitations of AI Coding Assistant

- It may not always provide the most efficient solution
- It requires careful review as it can suggest incorrect or insecure code

Installation of GitHub Copilot

1. Open Visual Studio Code.
2. Go to the Extensions view (`Ctrl+Shift+X`).
3. Search for 'GitHub Copilot' in the marketplace.
4. Click on the install button.

Using GitHub Copilot

1. Once installed, GitHub Copilot automatically suggests completions as you type.
2. To accept a suggestion, simply press `Tab`.
3. For a list of alternative suggestions, press `Ctrl+Enter`.

GitHub Copilot requires a GitHub account and Copilot subscription. The suggestions it provides should be reviewed for accuracy and security

Installation of Tabnine

1. Open Visual Studio Code.
2. Go to the Extensions view (Ctrl+Shift+X).
3. Search for 'Tabnine' in the marketplace.
4. Click on the install button.
5. Create a Tabnine account by following instructions in the extension.

Using Tabnine

1. Once installed, Tabnine automatically suggests completions as you type.
2. To accept a suggestion, simply press `Tab`.
3. You can also use the comment based completion.

```
// create a fibonacci sequence function that returns an array of n numbers  
// and stops the iteration based on the parameters passed to the function
```

References

1. <https://copilot.github.com/>
2. <https://github.com/features/copilot/>
3. <https://www.tabnine.com/>