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### The Gartner Magic Quadrant for Al Code Assistants



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VP Analyst







#### **1. What are AI Code Assistants?**

**2. Magic Quadrant Deep Dive** 

#### **3. Learnings**

#### 4. The Road Ahead





#### **1. What are AI Code Assistants?**

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#### **Market Definition of AI Code Assistants**

**Gartner defines AI code assistants as** 

- **1. Tools that assist in generating and analyzing software code and configuration.**
- 2. The assistants use foundation models such as large language models (LLMs) that have been optionally fine-tuned for code, or programunderstanding technologies, or a combination of both.
- 3. Software developers prompt the code assistants to generate, analyze, debug, fix, and refactor code, to create documentation, and to translate code between languages.
- 4. Code assistants integrate into developer tools like code editors, command-line terminals and chat interfaces. Some can be customized to an organization's specific codebase and documentation.



Source: Magic Quadrant for AI Code Assistants, 2024

## What is the value of AI Code Assistants?



#### **Value of AI Code Assistants**



Limited view of the value of AI code assistants

Additional value AI code assistants can provide

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Source: How to Communicate the Value of AI Code Assistants

#### How *hot* are these AI Code Assistants?



#### **Key Takeaway:**

# By 2028, 90% of enterprise software engineers will use AI code assistants, up from less than 14% in early 2024

Source: Top 5 Strategic Technology Trends in Software Engineering for 2024



#### How do I choose an AI Code Assistant?



Agenda

# 1.What are AI Code Assistants? 2.Magic Quadrant Deep Dive 3.Learnings 4.The Road Ahead

Source: Top 5 Strategic Technology Trends in Software Engineering for 2024



#### Our Magic Quadrant will help you cut through the noise in this highly hyped market so you can select vendors that align with your AI ambitions and your developers' use cases.



#### Magic Quadrant Structure



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#### Magic Quadrant for AI Code Assistants: Inclusion Criteria

10 paying customer orgs

Offer the following capabilities Generally Available by Sept 30 2024:





#### **Magic Quadrant for AI Code Assistants**

#### List of vendors in alphabetical order:

- 1. Alibaba Cloud
- 2. Amazon Web Services
- 3. Codeium
- 4. CodiumAI (a.k.a Qodo)
- 5. GitHub
- 6. GitLab
- 7. Google Cloud
- 8. IBM
- 9. Refact.ai
- 10. Sourcegraph
- 11. Tabnine
- 12. Tencent Cloud



ABILITY TO EXECUTE



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Source: Magic Quadrant for AI Code Assistants, 19 August 2024

#### **Magic Quadrant for AI Code Assistants: Leaders**



Source: Magic Quadrant for AI Code Assistants, 19 August 2024



#### **Magic Quadrant for AI Code Assistants: Challengers**



Source: Magic Quadrant for AI Code Assistants, 19 August 2024

#### **Magic Quadrant for AI Code Assistants: Visionaries**



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#### **Magic Quadrant for AI Code Assistants: Niche Players**



#### **Critical Capabilities for AI Code Assistants**





Agenda

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Source: Top 5 Strategic Technology Trends in Software Engineering for 2024



#### Key Take-Away: A modest, solid 5-10% gain

By 2028, systematic adoption of AI code assistants in 2023 will result in at least 36% compounded developer productivity growth.

Source: How to Communicate the Value of AI Code Assistants



#### Challenges

- **1. Adoption stalls at about 60%**
- **2. Engagement varies widely**
- **3. Agile Learning works**
- Expectations: Managers, Devs differ
   Al Adoption driving Instability





Agenda

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Source: Top 5 Strategic Technology Trends in Software Engineering for 2024



#### **Al Code Assistants: Road Ahead**

- **1. Assisting the entire SDLC**
- **2. Assisting non-developer Persona**
- **3. Assistants employing Agents**
- **4. Adaptive, Dynamic UX**
- **5. Interactive to Batch mode**



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