Amazon CodeWhisperer

Build applications faster and more
securely with your AI coding companion

Pete Davis

Partner Solutions Architect

Agenda

- Customer challenges

- Service overview, benefits, and features

- Demo

- Roadmap

Quickly building reliable, secure code is challenging

Shortage of
developers[1]

Time spent on
undifferentiated code

Appropriate use
of open source

Data privacy

Time spent learning
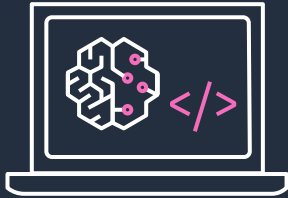technologies, APIs,
and best practices

Write secure code

[1]Gartner: 2023 Planning Guide for Application Development

CodeWhisperer

BUILD APPLICATIONS FASTER AND MORE SECURELY WITH YOUR AI CODING COMPANION
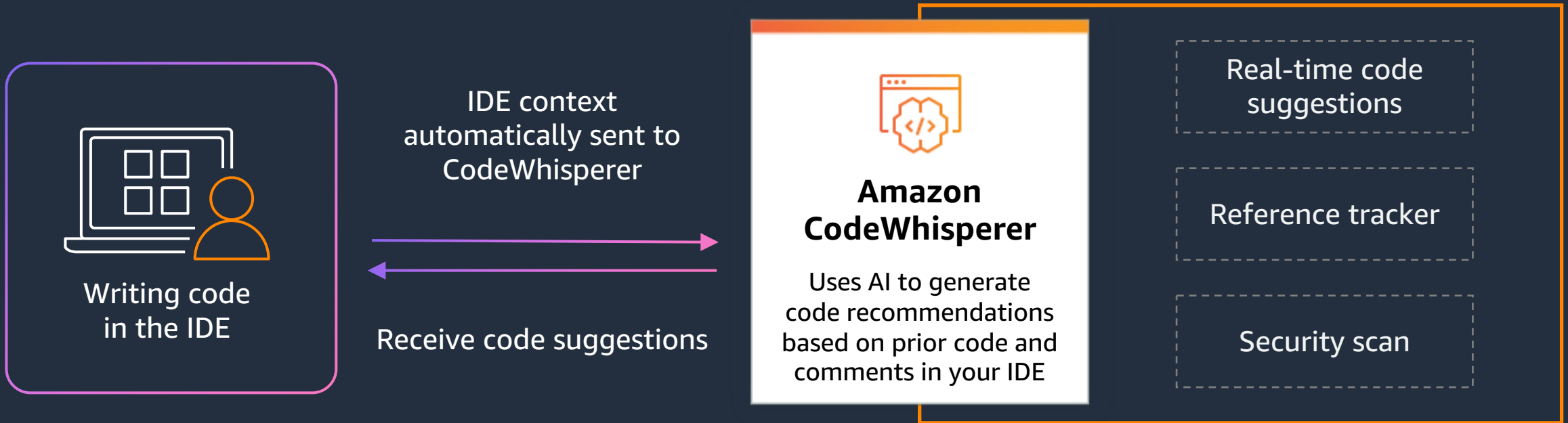
Generate code suggestions in real time

Scan code for hard-to-find vulnerabilities

Flag code that resembles open-source training data or filter by default

During preview Amazon ran a productivity challenge, and participants who used Amazon CodeWhisperer were 27% more likely to complete tasks successfully and did so an average of 57% faster than those who did not use CodeWhisperer.

How it works

Writing code
in the IDE

IDE context
automatically sent to
CodeWhisperer

Receive code suggestions

**Amazon
CodeWhisperer**

Uses AI to generate
code recommendations
based on prior code and
comments in your IDE

Real-time code
suggestions

Reference tracker

Security scan

Content processed by CodeWhisperer Professional is not stored or used for service improvement.

Use with your tools
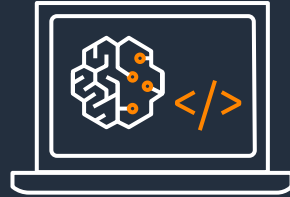
Code generation

AND

Go, Rust, PHP, Ruby, Kotlin, C, C++,
Shell scripting, SQL, and Scala

AND

Amazon SageMaker Studio, CLion,
GoLand, WebStorm, Rider, PhpStorm,
RubyMine, and DataGrip

Benefits

Quickly accomplish
basic coding tasks

More easily use unfamiliar
APIs and frameworks

Get high-quality
suggestions for AWS
services

Use AI responsibly

Improve
application security

Use your
favorite tools

Why CodeWhisperer?

**MAKES IT MORE EFFICIENT TO USE AWS SERVICES BY
PROVIDING CODE SUGGESTIONS OPTIMIZED FOR AMAZON APIs**

Reference tracking

Security scanning

Bias avoidance

Code generation

- Get multiple code suggestions in seconds based on natural language (English) description of coding task and surrounding code

- Provides high-quality suggestions for popular AWS services

- Generated code matches developer style and patterns

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aws

Reference tracking

- Trained on billions of lines of code

- Flags code similar to open-source training data

- Tracks accepted suggestions so that you can provide appropriate attribution

- Enterprise controls to more easily deactivate/filter code suggestions similar to open-source training data

Security scanning

- Scan generated and developer-written code to detect security vulnerabilities

- Receive vulnerability remediation suggestions

- Scan for hard-to-find security vulnerabilities

- Supports VS Code and JetBrains IDEs for Python, Java, and JavaScript

Enterprise controls

- Provision and manage team access through AWS IAM Identity Center and single sign-on

- Set organizational policies, such as automatic filtering of code suggestions similar to open-source code

SmugMug improved focus

" Distractions are a constant challenge while coding, especially when it's necessary to switch context to look up code samples and documentation on the web. Amazon CodeWhisperer **keeps me focused on the code** by automatically offering helpful suggestions right when I need them, so I never have to leave my editor. **"**

Ryan Grove

Staff Software Engineer, SmugMug

SmugMug

Getting started

Get started

**Dive deep with
a workshop**

**Learn how to build an
event-driven
serverless app**

Demo

Roadmap

Questions?

Thank you!