Qualifications

Welcome to the 2025 Stack Overflow Developer Survey

This is the 15th Annual Stack Overflow Developer Survey, the longest-running and most comprehensive study of those who code. For a decade and a half, the insights gathered from your responses have profoundly shaped the global developer community's understanding of the technology landscape, influencing tools, careers, and the industry at large. This anonymous survey is designed to capture a snapshot of the developer experience in 2025.

By proceeding, you contribute to a <u>invaluable body of knowledge that is available</u> to developers worldwide. We've structured the survey to respect your time, taking approximately 15 - 18 minutes to complete. There are two screening questions to make sure you meet a few basic qualifications. Most questions are not required and we have done our best to keep required questions to a minimum. You can take as much time as you need, we encourage you to finish this survey in one sitting so that you get a chance to answer all questions. After 72 hours, your answers will be recorded if you do not get a chance to read

every question and have consented to share your answers. Any questions you have about the survey can be directed to our Meta community with the survey-2025 tag.

These are the questions you will be answering are divided in 5 sets, the technology, community and AI questions are randomized:

- Learning and Career (23 questions)
- Tech and Tech Culture (20 questions)
- Community (10 questions)
- AI (20 questions)
- Final Thoughts (3 questions)

Important Note on Ad Blockers and Cloud Security tools: Ad blockers and cloud security tools can sometimes block essential scripts or elements needed for the survey to function correctly. To avoid any potential error messages, delays in the survey appearing or disruptions, please consider temporarily pausing your cloud security or adblocking plugin, or specifically unblocking Qualtrics while you take the survey.

To begin, click Next!

Are you someone who writes code? Please select one of the following options that best describes you today.

\bigcirc	I am a developer by profession
0	I am not primarily a developer, but I write code sometimes as part of my work/studies
\bigcirc	I used to be a developer by profession, but no longer am
\bigcirc	I am learning to code
\bigcirc	I code primarily as a hobby
\bigcirc	I work with developers or my work supports developers but am not a developer by profession
\bigcirc	None of these

What is your age?

- O Under 18 years old
- O 18-24 years old
- O 25-34 years old
- O 35-44 years old
- O 45-54 years old
- O 55-64 years old
- O 65 years or older
- O Prefer not to say

You consent to providing your information to help us stay privacy compliant

Your participation in this survey is completely anonymous. As in previous years, anonymized results of the survey will be made publicly available under the Open Database License, where anyone can download and analyze the data. On that note, throughout the survey, certain answers you and your peers give will be treated as personally identifiable information, and therefore kept out of the anonymized results file. The information gathered via this survey is made available to the public in the spirit of community which Stack Overflow was founded and to serve as a resource for everyone who codes. More about the importance of privacy at Stack Overflow is available to read on our website.

By selecting "I agree" and submitting this survey, you acknowledge that you voluntarily consent to your anonymous answers being made publicly available.

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	- 1	ЧY	

O I do not agree (selecting this will end the survey)

Education + Career

Which of the following best describes the highest level of formal education that you've completed?

\bigcirc	Primary/elementary school
0	Secondary school (e.g. American high school, German Realschule or Gymnasium, etc.)
\bigcirc	Some college/university study without earning a degree
\bigcirc	Associate degree (A.A., A.S., etc.)
\bigcirc	Bachelor's degree (B.A., B.S., B.Eng., etc.)
\bigcirc	Master's degree (M.A., M.S., M.Eng., MBA, etc.)
\bigcirc	Professional degree (JD, MD, Ph.D, Ed.D, etc.)
\bigcirc	Other (please specify):

Which of the following best describes your current employment status?

\bigcirc	Empl	loyed
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Independent contractor, freelancer, or self-employed

Not employed

Student

O Retired

O I prefer not to say

Which of the following additional activities are you currently engaged in?
 Attending school (full-time) Attending school (part-time) Engaged in paid work (less than 10 hours per week)
☐ Engaged in paid work (10-19 hours per week)
☐ Engaged in paid work (20-29 hours per week)
☐ Transitioning to retirement (gradually reducing work hours) ☐ Volunteering (regularly)
☐ Caring for dependents (children, elderly, etc.)
□ None of the above
How many years of professional work experience do you have? Please round to the nearest whole number, excluding any decimal points. If your answer is '0', please leave blank.
Did you begin learning to code or learn a new coding skill/programming language in the last year?
O Yes, I am new to coding or currently a student
- 100, I dili novi to coding of cultority a student

Yes, I am not new to coding but am learning new coding techniques or programming language
O No, I am not new to coding and did not learn new coding techniques or programming languages
How did you learn to code in the past year? Select all that apply.
☐ Technical documentation (is generated for/by the tool or system)
☐ Games or coding challenges
Colleague or on-the-job training
☐ Videos (not associated with specific online course or certification)
Online Courses or Certification (includes all media types)
☐ Books / Physical media
Stack Overflow or Stack Exchange
☐ AI CodeGen tools or AI-enabled apps
☐ Blogs or podcasts
School (i.e., University, College, etc)
Other online resources (e.g. standard search, forum, online community)
☐ Coding Bootcamp
Other (please specify):

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Did you spend time in the last year learning AI programming or AI-enabled tooling on your own or at

work	</th
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\bigcirc	Yes, I learned how to use AI-enabled tools required for my job or to
	benefit my career
\bigcirc	Yes, I learned how to use AI-enabled tools for my personal curiosity
	and/or hobbies
0	No, I learned something that was not related to AI or AI enablement as required for my job or to benefit my career
0	No, I learned something that was not related to AI or AI enablement for my personal curiosity and/or hobbies
\bigcirc	No, I didn't spend time learning in the past year
	How did you learn to code for AI in the past year? Select all
1	that apply.
	Games or coding challenges
	Blogs or podcasts
	School (i.e., University, College, etc)
	Stack Overflow or Stack Exchange
	Coding Bootcamp
	Online Courses or Certification (includes all media types)
	Colleague or on-the-job training
	Al CodeGen tools or Al-enabled apps
	Books / Physical media
	Technical documentation (is generated for/by the tool or system)
	Videos (not associated with specific online course or certification)
	Other online resources (e.g. standard search, forum, online community)

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Other (please sp	pecify):
Including any advantion have	u pagipu vagra baya ya i baan
9 ,	v many years have you been
	d to the nearest whole number,
excluding any decimal point	S.
Which of the following descri	ibes your current job or the job
you had for the most time in	
you had for the thiote time in	the past year.
O Academic researcher	
O AI/ML engineer	
O Applied scientist	
O Architect, software or solutions	
O Cloud infrastructure engineer	
O Cybersecurity or InfoSec professiona	I
O Data engineer	
O Data or business analyst	
O Data scientist	
O Database administrator or engineer	
O Developer, Al apps or physical Al	
O Developer, back-end	
O Developer, desktop or enterprise app	olications

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\bigcirc	Developer, embedded applications or devices
\bigcirc	Developer, front-end
\bigcirc	Developer, full-stack
\bigcirc	Developer, game or graphics
\bigcirc	Developer, mobile
\bigcirc	Developer, QA or test
\bigcirc	DevOps engineer or professional
\bigcirc	Engineering manager
\bigcirc	Financial analyst or engineer
\bigcirc	Founder, technology or otherwise
\bigcirc	Product manager
\bigcirc	Project manager
\bigcirc	Retired
\bigcirc	Senior executive (C-suite, VP, etc.)
\bigcirc	Student
\bigcirc	Support engineer or analyst
\bigcirc	System administrator
\bigcirc	UX, Research Ops or UI design professional
\bigcirc	Other (please specify):

Approximately how many people are employed by your employer? This should only include your primary company, and if there was more than one employer please consider

the one you spent most of your time working for in the past year.
O Just me - I am a freelancer, sole proprietor, etc.
O Less than 20 employees
O 20 to 99 employees
0 100 to 499 employees
0 500 to 999 employees
0 1,000 to 4,999 employees
5,000 to 9,999 employees
O 10,000 or more employees
O I don't know
Are you an individual contributor or people manager? O Individual contributor O People manager
Which best describes your current work situation?
O Remote
O In-person
O Hybrid (some remote, leans heavy to in-person)
O Hybrid (some in-person, leans heavy to flexibility)
O Your choice (very flexible, you can come in when you want or just as needed)

Have you **influenced or endorsed** a new technology purchase at your organization or sole proprietor job in the past year?

\bigcirc	Yes, I influenced the purchase of a substantial addition to the tech stack
0	Yes, I influenced the purchase of a tool that more than five colleagues use but it is not a substantial addition to the tech stack
0	Yes, I endorsed a tool that was open-source and is currently used by more than just myself but no purchase was made
0	Yes, I endorsed a tool that was ultimately not purchased or used at my organization
\bigcirc	No

When you're in a position to **influence or endorse a technology**, whether at work, for school, or for a personal project you're responsible for, what features or attributes matter most when deciding to support a tool? What factors would be deal-breakers?

First, select the context (work, school, personal project). Then, rank the following features in order of importance.

()	Work
	VVOIK

O School

What attracts you to a technology or causes you to endorse it (most to least important)?

Reliability and low latency				
Good brand and public image				
Costs are manageable				
Easy-to-use API				
Reputation for quality				
Connected to an open-source project				
Al integration or Al Agent capabilities				
Robust and complete API				
Customizable and manageable codebase				
Other (please specify):				

What would turn you off or cause you to reject it (most to least important)?

What industry do you work for in?

\bigcirc	Software Development
\bigcirc	Computer Systems Design and Services
\bigcirc	Internet, Telecomm or Information Services

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Fintech	
O Energy	
O Government	
O Banking/Financial Services	
O Manufacturing	
O Transportation, or Supply Chain	
O Healthcare	
O Retail and Consumer Services	
O Higher Education	
O Media & Advertising Services	
O Insurance	
OOther:	
How satisfied are you in your role?	current professional developer
Not at all satisfied	Extremely satisfied

Rank the following attributes of your current professional job in technology according to those that contribute your job satisfaction so that the first is the most important, last is

00 10 20 30 40 50 60 70 80 90 100

least important (if you just started a new job, consider the job you spent the most time at in the past year):

You like your manager					
Control over the level of quality in projects					
Opportunities to mentor and lead junior-level coworkers					
Collaboration and support from a team					
Solving real-world problems					
Innovation through solving challenging and complex problems					
Competitive pay and benefits					
Recognition from peers for your work					
Developing specialized expertise					
Expert mentors					
Recognition from leadership for your work					
Working with new technologies and tools					
Autonomy and trust to manage your own tasks					
Job stability and career growth with a single employer					
Other (please specify):					

work in

Do you believe Al is a threat to your current job?
O Yes
O No
O I'm not sure
Have you considered a career change or transitioned into a new role in the past year?
O I have strongly considered changing my career and/or the industry I work in
I have somewhat considered changing my career and/or the industry I

For your **primary work role** (student, developer, or technologist) over the past year:

I have transitioned into a new career and/or industry voluntarily

I have transitioned into a new career and/or industry involuntarily

I have neither consider or transitioned into a new career or industry

Excluding general operating systems (like Windows or macOS) and web browsers, **how many distinct software applications or platforms** did you regularly use to create,

analyze, manage, or share information in order to do your
job? Please enter a whole number below with no
punctuation, or leave blank.
For your side projects or other personal work over the
past year (focus on the project you spent the most time on
if applicable):
Excluding general operating systems and web browsers,
how many distinct software applications or platforms
did you regularly use to do your job? Please enter a whole
number below with no punctuation, or leave blank.
Compensation
• •
Whore do you live?
Where do you live?
✓

Which currency do you use day-to-day? If your answer is
complicated, please pick the one you're most comfortable
estimating in.

What is your current total **annual** compensation (salary, bonuses, and perks, before taxes and deductions) in terms of your day-to-day currency? Please enter a whole number in the box below, without any punctuation. If you are paid hourly, please estimate an equivalent yearly salary. If you prefer not to answer, please leave the box empty.

Tech and Tech Culture

Did you work with programming, scripting and markup languages in the last year or do you plan to in the year to come? Here, we are referring to anything you use that is conventionally referred to as code.

O Yes

Which **programming, scripting, and markup languages** have you done extensive development work in over the past year, and which do you want to work in over the next year? (If you both worked with the language and want to continue to do so, please check both boxes in that row.)

	Worked with in past year	Want to work with next year
Ada		
Assembly		
Bash/Shell (all shells)		
С		
C#		
C++		
COBOL		
Dart		
Delphi		
Elixir		
Erlang		
F#		
Fortran		

	worked with in past year	want to work with next year
GDScript		
Go		
Groovy		
HTML/CSS		
Java		
JavaScript		
Kotlin		
Lisp		
Lua		
MATLAB		
MicroPython		
OCaml		
Perl		
PHP		
PowerShell		
Prolog		
Python		
R		
Ruby		
Rust		
Scala		
SQL		

	Worked with in past year	Want to work with next year
Swift		
TypeScript		
VBA		
Visual Basic (.Net)		
Zig		
Мојо		
Gleam		
Was the programming language you use not listed above? List below, separated by a comma and a space for each, the programming language(s) you used in the		
past year.		

Was the programming language you want to use not listed above? List below, separated by a comma and a space for each, the programming language(s) **you want to use next year**.

Cosmos DB

Databricks SQL

	worked with in past year	want to work with next year
Datomic		
DuckDB		
Dynamodb		
Elasticsearch		
Firebase Realtime Database		
H2		
IBM DB2		
InfluxDB		
MariaDB		
Microsoft Access		
Microsoft SQL Server		
MongoDB		
MySQL		
Neo4J		
Oracle		
PostgreSQL		
Redis		
Snowflake		
SQLite		
Supabase		
Clickhouse		
Cockroachdb		

	Worked with in past year	Want to work with next year
Amazon Redshift		
Pocketbase		
Valkey		
Was the databa	ise environment you us	se not listed above?
List below, separ	rated by a comma and	d a space for each,
what you used	in the past year.	
Was the databa	ıse environment you w	ant to use not listed
	w, separated by a con	
	want to use next yea	'

Did you work with cloud platforms, containerization/orchestration tools, package managers, build tools or infrastructure as code solutions in the last year or do you plan to in the year to come? Here, we are

referring to tooling that automates, manages, and scales
the entire application lifecycle, often leveraging remote,
virtualized resources.

\bigcirc	Yes
\bigcirc	No
\bigcirc	I don't know

Which cloud platforms, containerization/orchestration tools, package managers, build tools, and infrastructure as code solutions have you done extensive development work in over the past year, and which do you want to work in over the next year? (If you both worked with the platform and want to continue to do so, please check both boxes in that row.)

	Worked with in past year	Want to work with next year
Amazon Web Services (AWS)		
Ansible		
APT		
Bun		
Cargo		
Chocolatey		
Cloudflare		

	worked with in past year	want to work with next year
Composer		
Datadog		
Digital Ocean		
Docker		
Firebase		
Google Cloud		
Gradle		
Heroku		
Homebrew		
IBM Cloud		
Kubernetes		
Make		
Maven (build tool)		
Microsoft Azure		
MSBuild		
Netlify		
New Relic		
Ninja		
npm		
NuGet		
Pacman		
Pip		

	Worked with in past year	Want to work with next year
pnpm		
Podman		
Poetry		
Prometheus		
Railway		
Splunk		
Supabase		
Terraform		
Vercel		
Vite		
Webpack		
Yandex Cloud		
Yarn		

Was the cloud platforms, containerization/orchestration tools, package managers, build tools, and infrastructure as code solutions you use not listed above? List below, separated by a comma and a space for each, what you used in the past year.

Was the cloud platforms, containerization/orchestration tools, package managers, build tools, and infrastructure as code solutions you want to use not listed above? List below, separated by a comma and a space for each, what**you want to use next year**.

Did you work with web frameworks and web technologies in the last year or do you plan to in the year to come? Here, we are referring to technology that helps website and web apps materialize.

O Yes

O No

🔾 I don't know

Which web frameworks and web technologies have you done extensive development work in over the past year, and which do you want to work in over the next year? (If

you both worked with the framework and want to continue to do so, please check both boxes in that row.)

	Worked with in past year	Want to work with next year
Angular		
AngularJS		
ASP.NET		
ASP.NET Core		
Astro		
Blazor		
Deno		
Django		
Drupal		
Express		
FastAPI		
Fastify		
Flask		
jQuery		
Laravel		
NestJS		
Next.js		
Node.js		
Nuxt.js		
Phoenix		

	Worked with in past year	Want to work with next year
React		
Ruby on Rails		
Spring Boot		
Svelte		
Symfony		
Vue.js		
WordPress		
Axum		
Were the web frameworks and web technologies you use not listed above? List below, separated by a comma and a space for each, what you used in the past year .		

Were the web frameworks and web technologies you want to use not listed above? List below, separated by a comma and a space for each, the what **you want to use next year**.

/31/25, 9:30 AM	Qualtrics Survey So	Qualtrics Survey Software	
code editing to year to come? Code that allow	ith development environgles in the last year or on the Here, we are referring by you to write, edit and code with other development.	lo you plan to in the to programs like VS save code easily and	
O Yes O No O I don't know			
	oment environments		
year, and whicl	rools did you use regulen do you want to work heck all that apply.	,	
	Worked with in past year	Want to work with next year	
Aider			
Android Studio			
Bolt			
Claude Code			

Cline and/or Roo

	worked with in past year	want to work with next year
Cursor		
Eclipse		
IntelliJ IDEA		
Jupyter Notebook/JupyterLab		
Lovable.dev		
Nano		
Neovim		
Notepad++		
PhpStorm		
PyCharm		
Rider		
RustRover		
Sublime Text		
Trae		
Vim		
Visual Studio		
Visual Studio Code		
VSCodium		
WebStorm		
Windsurf		
Xcode		
Zed		

Was the developer environment or AI-enabled code editing
tool you use not listed above? List below, separated by a
comma and a space for each, what you used in the past
year.
Was the developer environment or AI-enabled code editing
tool you want to use not listed above? List below,
separated by a comma and a space for each, what you
want to use next year.

Which rising technology of the added as **new tag or tag subject area on Stack Overflow** in the last three years **have you used** regularly in the past year, and which do you **want to work with** over the next year? Please check all that apply.

	Worked with in past year	Want to work with next year
Amazon Bedrock		
Ollama		
hostinger		
Polars		
c++23		
UV		
SwiftData		
Odoo		
Shadon/ui		
Delphi 12+ Athens		
Large Language Model		
Microsoft Fabric		
Google Gemini		
.NET 8 or higher		
Pydantic		
LangGraph		
RAG		
Ultralytics		
Tailwind CSS 4		
visionOS		

Was the new tag on Stack Overflow (i.e. added in the last 2 – 3 years) you use not listed above? List below, separated by a comma and a space for each, what you used in the past year .				
Was the new tag on Star - 3 years) you want to separated by a commwant to use next yea	use not listed aboat and a space fo	ove? List below,		
What is the primary operating system in which you work? Personal use Professional use				
Windows				
MacOS				
Ubuntu				
Android				
Windows Subsystem for Linux (WSL)				

	Personal use	Professional use
iOS		
Debian		
Linux (non-WSL)		
Arch		
iPadOS		
Red Hat		
Fedora		
ChromeOS		
Pop!_OS		
NixOS		

Which collaborative work management and/or code documentation tools did you use regularly over the past year, and which do you want to work with over the next year? Select all that apply

	Worked with in past year	Want to work with next year
Airtable		
Asana		
Azure Devops		
Clickup		
Coda		

	worked with in past year	want to work with next year
Confluence		
Doxygen		
GitHub		
GitLab		
Google Colab		
Google Workspace		
Jira		
Linear		
Lucid (includes Lucidchart)		
Markdown File		
Microsoft Planner		
Miro		
Monday.com		
Notion		
Obsidian		
Redmine		
Stack Overflow for Teams		
Trello		
Wikis		
YouTrack		

Stack Exchange

Discord

Reddit

documentation	tools you use not liste comma and a space tyear.	ed above? List below,
documentation	ed by a comma and a	nent and/or code not listed above? List space for each, what
considerably or	nity platforms have y consistently in the pa o use next year? Selec	st year, and which
	Worked with in past year	Want to work with next year
Stack Overflow		

	Worked with in past year	Want to work with next year
Dev.to		
Hacker News		
Hashnode		
GitHub (public projects, not private repos)		
Slack (public channels, not work)		
Bluesky		
X		
Kaggle		
YouTube		
Twitch		
LinkedIn		
Substack		
Medium		
Company-sponsored forums		

Was the community platform you use not listed above? List below, separated by a comma and a space for each, what you used in the past year.

Which **LLM models for AI tools** have you used for development work in the past year, and which would you like to use next year? Select all that apply.

) I don't know

	Worked with in past year	Want to work with next year
Alibaba Cloud Qwen models		
Amazon Titan models		
Anthropic: Claude Sonnet		
Cohere: Command A		
DeepSeek (R- Reasoning models)		
DeepSeek (V- General purpose models)		
Gemini (Flash general purpose models)		
Gemini (Pro Reasoning models)		
Meta Llama (all models)		
Microsoft Phi-4 models		
Mistral Al models		
openAI GPT (chatbot models)		
openAl Image generating models		
openAl Reasoning models		
Perplexity Sonar models		

	Worked with in past year	want to work with next year
Reka (Flash 3 or other Reka models)		
X Grok models		
List below, separ	del for Al tools you use ated by a comma an in the past year.	
Was the LLM mo	del for Al tools you wo	ant to use not listed
	ow, separated by a co	·
ior each, what y	ou want to use next	year.
Community		
Do you have a S	stack Overflow accoun	nt?

More than 15 years, or since Stack Overflow started in 2008

Between 5 and 10 years

Between 10 and 15 years

How frequently would you say you participate in Q&A on Stack Overflow? By participate we mean ask, answer, and vote or comment on questions.

\bigcirc	I have never participated in Q&A on Stack Overflow
\bigcirc	Infrequently, less than once per year
\bigcirc	Less than once every 2 - 3 months
\bigcirc	Less than once per month or monthly
\bigcirc	A few times per month or weekly
\bigcirc	A few times per week
\bigcirc	Daily or almost daily
\bigcirc	Multiple times per day

Whether it be to solve a problem, for career growth or connecting with a community of developers, is there an alternative to the Q&A format you prefer using today or would like to see on Stack Overflow to get what you need? Select all that apply.

Chat (bot/AI)
Job board
Long-form articles
Logic games/puzzles
Coding challenges
Direct messaging of users
Chat (people)

/31/25, 9:30 AM Video	Qualtrics Survey Software
Lists c	of recommendations (tools, frameworks, technologies, etc.)
□ Day-i	n-the-life profiles/interviews with experts
☐ Messo	age Boards
	Other (write in):
you r	n visiting Stack Overflow, which following activities are most interested in? Please rank the following so the activity is what most interests you and last is your interested activity.
	Bookmark posts to look at later
	Answer a question
	Directly open a Q&A post via search, documentation or a peer
	Read and/or vote on comments for a Question or Answer I am interested in
	Upvote/Downvote Q&A posts
	Browse content related to Q&A posts I recently viewed
	Use discussion or chat feature
	Ask a question

Comment on Q&	CA posts
Other (write in):	

Do you consider yourself a member of the Stack Overflow community?

- O No, not at all
- O No, not really
- O Neutral
- O Yes, somewhat
- O Yes, definitely
- O Not sure

When you visit Stack Overflow, how often is it a result of encountering issues from AI or AI-enabled tools that require extra time or effort to fix, understand, or debug?

- O More than half the time
- O About half of the time
- O Less than half of the time
- O Rarely, almost never
- O I don't use AI or AI-enabled tools

AI + AI Agents

Do you currently use AI tools in your development process? O Yes, I use AI tools daily Yes, I use AI tools weekly Yes, I use AI tools monthly or infrequently No, but I plan to soon No, and I don't plan to How favorable is your stance on using AI tools as part of your development workflow? Very favorable Favorable Indifferent Unfavorable Very unfavorable Unsure

How much do you trust the accuracy of the output from AI

tools as part of your development workflow?

\bigcirc	Highly trust
\bigcirc	Somewhat trust
\bigcirc	Neither trust nor distrust
\bigcirc	Somewhat distrust
\bigcirc	Highly distrust

How well do the AI tools you use in your development workflow handle complex tasks?

\bigcirc	Very well at handling complex tasks
\bigcirc	Good, but not great at handling complex tasks
\bigcirc	Neither good or bad at handling complex tasks
\bigcirc	Bad at handling complex tasks
\bigcirc	Very poor at handling complex tasks
\bigcirc	I don't use AI tools for complex tasks / I don't know

Which parts of your development workflow are you currently integrating into AI or using AI tools to accomplish or plan to use AI to accomplish over the next 3 - 5 years? Please select one for each scenario.

	Currently mostly Al	Currently partially AI	Plan to mostly use Al	Plan to partially use Al	plan to use AI for this task
Documenting code	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Deployment and monitoring	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Creating or maintaining documentation	\bigcirc	0	\bigcirc	\bigcirc	\bigcirc
Testing code	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Learning about a codebase			\bigcirc	\bigcirc	\bigcirc
Generating content or synthetic data	0	\circ	\bigcirc	\bigcirc	\bigcirc
Search for answers	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Writing code	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Predictive analytics	\bigcirc	\bigcirc	\bigcirc		\bigcirc
Debugging or fixing code		\bigcirc	\bigcirc	\bigcirc	\bigcirc
Committing and reviewing code	\circ	\circ	\bigcirc	\bigcirc	\bigcirc
Project planning	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Learning new concepts or technologies	\bigcirc	0	\bigcirc	\bigcirc	\bigcirc
Other (write in):	0	0	\circ	0	\circ

When using AI tools, which of the following problems or

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O Yes, I use AI agents at work weekly	
O Yes, I use AI agents at work monthly	or infrequently
O No, I use AI exclusively in copilot/auto	ocomplete mode
O No, but I plan to	
O No, and I don't plan to	
Have AI tools or AI agents ch development work in the pa	
O Yes, to a great extent	
O Yes, somewhat	
O Not at all or minimally	
O No, but my development work has cl factors	hanged somewhat due to non-Al
O No, but my development work has si factors	ignificantly changed due to non-Al
What industry purposes or s agents in your development from both lists.	pecific tasks are you using Al work? Select all that apply
☐ Business process automation	
Customer service support	
Cybersecurity	
Data and analytics	

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	Decision intelligence
	IT operations
	Marketing
	Software engineering
	Robotics
	Other Industry purpose (write in):
	Agent/multi-agent orchestration
	Integration with external agents and APIs
	Vector databases for AI applications
	Personalized agent creation
	MCP servers
	Language processing
	Multi-platform search enablement
	Other specific task (write in):

To what extent do you agree with the following statements regarding the impact of AI agents on your work as a developer?

	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
Al agents have increased my productivity.	\bigcirc	0	0	0	0
Al agents have helped me automate repetitive tasks.	0	\circ	0	\circ	0
Al agents have improved the quality of my code.	\bigcirc	\circ	0	0	\bigcirc
Al agents have accelerated my learning about new technologies or codebases.	0	\bigcirc	\circ	0	0
Al agents have helped me solve complex problems more effectively.	\circ	0	0	\circ	0
Al agents have reduced the time spent on specific development tasks.	\circ	0	0	0	0
Al agents have improved collaboration within my team.	\circ	0	0	0	0
Write in the most significant benefit if not listed above.	0	0	0	0	0

To what extent do you agree with the following statements regarding AI agents?

	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
I am concerned about the accuracy of the information provided by AI agents.	0	0	0	\circ	\bigcirc
Integrating AI agents with my existing tools and workflows can be difficult.	\circ	\circ	0	\circ	\bigcirc
It takes significant time and effort to learn how to use AI agents effectively.	\circ	\circ	0	\circ	\bigcirc
The cost of using certain AI agent platforms is a barrier.	\bigcirc	0	0	\circ	0
I have concerns about the security and privacy of data when using AI agents.	0	0	0	\circ	\bigcirc
My company's IT and/or InfoSec teams have strict rules that do not allow me to use AI agent tools or platforms	0	0	0	0	0
Write in the most significant challenge if not listed above:			0		0

You indicated you use or develop AI agents as part of your development work. Have you used any of the following tools for AI agent memory or data management in the past year?

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☐ ChromaDB	
☐ Fireproof	
☐ GitHub MCP Server	
☐ LanceDB	
☐ LangMem	
☐ Letta	
☐ mem0	
☐ Milvus	
□ Neo4j	
☐ pgvector	
Pinecone	
Qdrant	
Redis	
☐ supabase	
■ Weaviate	
Zep	
Was the tool or tools for AI ag	ent orchestration or agent
frameworks you used in the p	ast year not listed above?
Please write them below sepa	rated by a comma and
space if there are more than (one.

You indicated you use or develop AI agents as part of your development work. Have you used any of the following tools for AI agent orchestration or agent frameworks in the past year?

Agno
Amazon Bedrock Agents
AutoGen (Microsoft)
CrewAl
Haystack
IBM watsonx.ai
LangChain
LangGraph
Llama Index
lyzr
Martian
Ollama
OpenRouter
phidata
Semantic Kernel
Smol-AGI
Smolagents
Vertex AI
7apier

Was the tool or tools for AI agent orchestration or agent frameworks you used in the past year not listed above? Please write them below separated by a comma and space if there are more than one.
You indicated you use or develop AI agents as part of your development work. Have you used any of the following tools for AI agent observability, monitoring or security in the past year?
Adversarial Robustness Toolbox (ART)
] arize
Galileo
Grafana + Prometheus
helicone
Honeycomb
Langfuse
LangSmith
Metero
New Relic
opik
Protect AI
Sentry

7/31/25, 9:30 AM Snyk	Qualtrics Survey Software
☐ Vectra Al	
□ Wiz	
VVIZ	
Was the tool or tools for A	Al agent observability, monitoring
	e past year not listed above?
, ,	separated by a comma and
space if there are more t	
'	
You indicated you use or	develop AI agents as part of your
development work. Have	you used any of the following out-
of-the-box agents, copile	ots or assistants?
☐ AgentGPT	
Amazon Codewhisperer	
Auto-GPT	
☐ Blackbox AI	
☐ Bolt.new	
☐ ChatGPT	
☐ Claude Code	
Cody	
☐ Devin Al	

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☐ GitHub Copilot	
☐ Glean (Enterprise Agents)	
☐ Google Gemini	
☐ Lovable.dev	
☐ Microsoft Copilot	
☐ OpenHands (formerly OpenDevin)	
Perplexity	
☐ Replit	
☐ Roo code (Roo-Cline)	
Tabnine	
□ v0.dev	
Was the out-of-the-box age used in the past year not listed below separated by a commethan one.	
used in the past year not listed below separated by a comm	t coding tasks, in which

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☐ When I want to fully	understand something
☐ When I want to lear	n best practices
☐ When I don't trust A	's answers
☐ When I need help fix	king complex or unfamiliar code
☐ When I need quick I	nelp troubleshooting
☐ When I want to com	pare different solutions
☐ When I have ethical	or security concerns about code
☐ I don't think I'll need	help from people anymore
	Other (please specify):
	2 – E voaro what akillo do vou haliova will
	3-5 years, what skills do you believe will
remain valuable	e for developers even as AI tools become
remain valuable	
remain valuable	e for developers even as AI tools become
remain valuable	e for developers even as AI tools become
remain valuable	e for developers even as AI tools become
remain valuable	e for developers even as AI tools become
remain valuable	e for developers even as AI tools become
remain valuable	e for developers even as AI tools become Please describe.
remain valuable?	e for developers even as AI tools become Please describe.
remain valuable more capable? Final Thoughts	e for developers even as AI tools become Please describe.
remain valuable more capable? Final Thoughts	e for developers even as AI tools become Please describe.
remain valuable more capable? Final Thoughts How do you fee	e for developers even as AI tools become Please describe. I about the length of the survey this year?

How easy or difficult was this survey to complete?	
□ Easy	
☐ Neither easy nor difficult	
Difficult	
Did you have any issues (technical or otherwise) while taking this survey? Please describe.	
	/.

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