



DevOps for Defense

March 2024

DevOps & Gen AI

JD Black

<https://devopsfordefense.org>

<https://www.meetup.com/DevOps-for-Defense/>

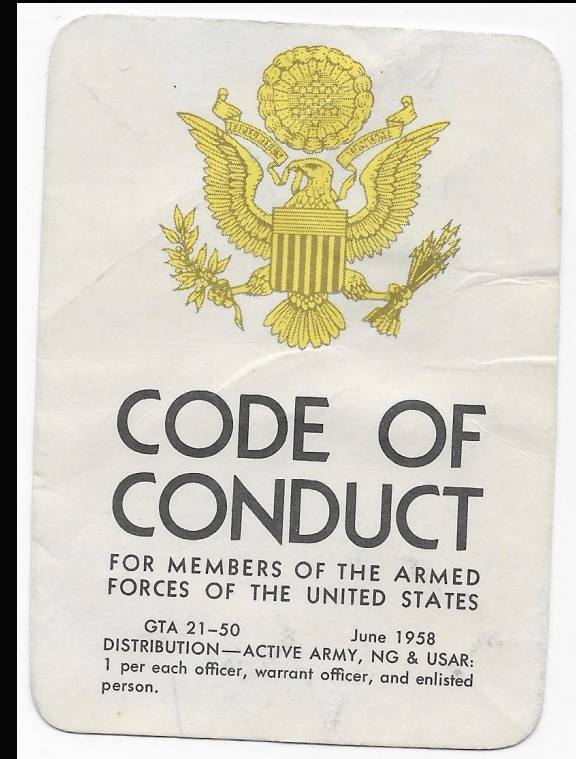
<https://github.com/jondavid-black/DevOpsForDefense>

devopsfordefense@gmail.com

<https://twitter.com/devops4defense>

DevOps for Defense Meetup: Code of Conduct

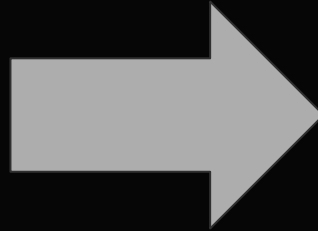
- UNCLASSIFIED ONLY!!!!
- Treat each other with respect and professionalism.
- Do not talk about private, sensitive, or proprietary work.
- Do talk about your experiences, needs, desires to improve work in our domain.
- Do share your thoughts.
- Do learn from others.
- Do respect & tip your bartenders!



Things Have Changed a Bit...Will Continue to Adapt



Mysterious Closure
Jan/Feb/Mar 2024



Trying Something Different
Mar 2024



DevOpsDays

BIRMINGHAM, AL

16-18 April 2024



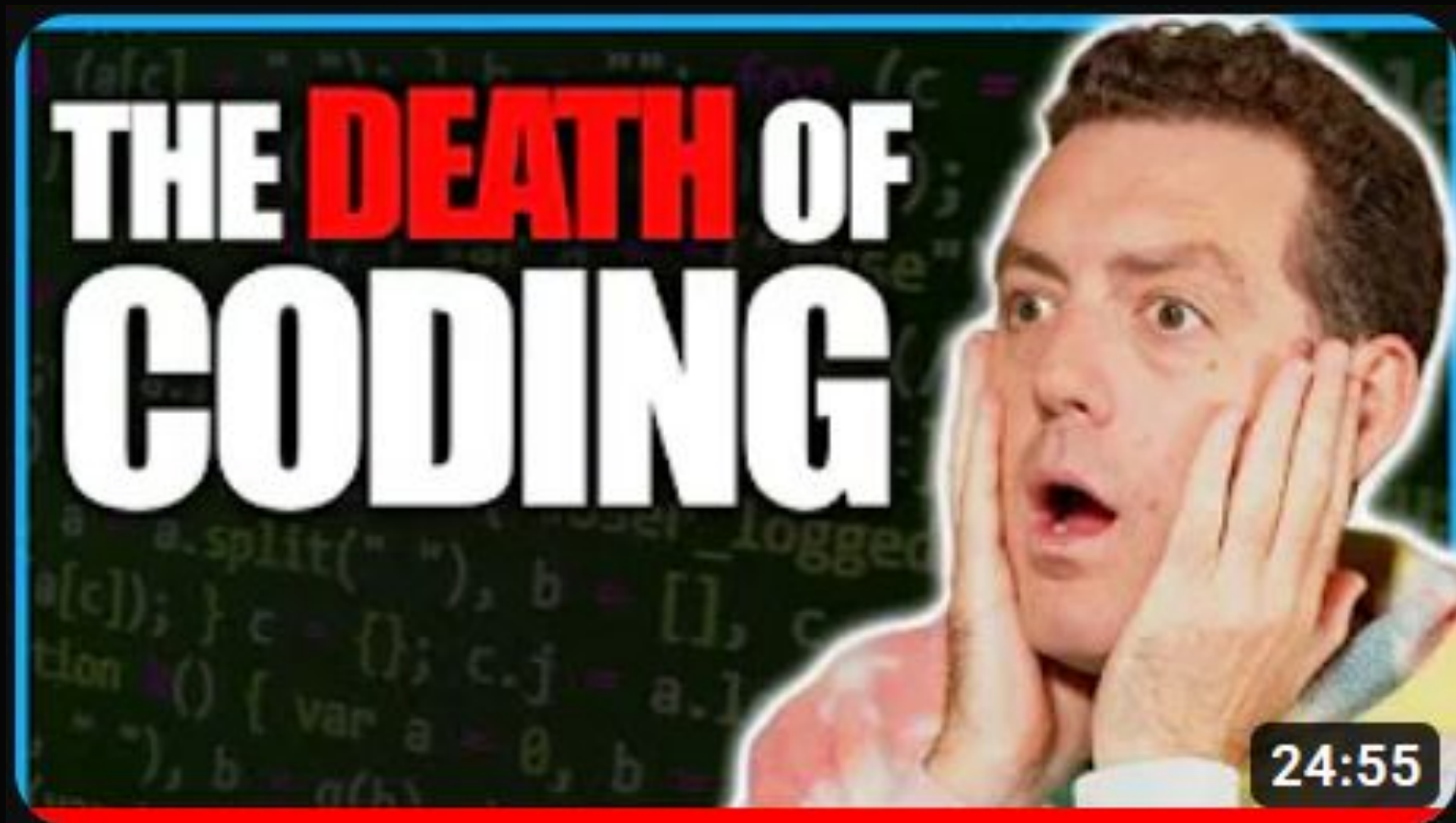
Red Mountain Theatre Arts Campus
1600 3rd Ave S
Birmingham, AL 35233

ABOUT

devopsdays is a worldwide community conference series for anyone interested in IT improvement.

Conference Discount Code: HSVDEFENSE

It's Official! AI has Won!*



*I read it on the internet, so it must be true.

My Boss is Jumping on the AI Hype Train!



ENGINEERS



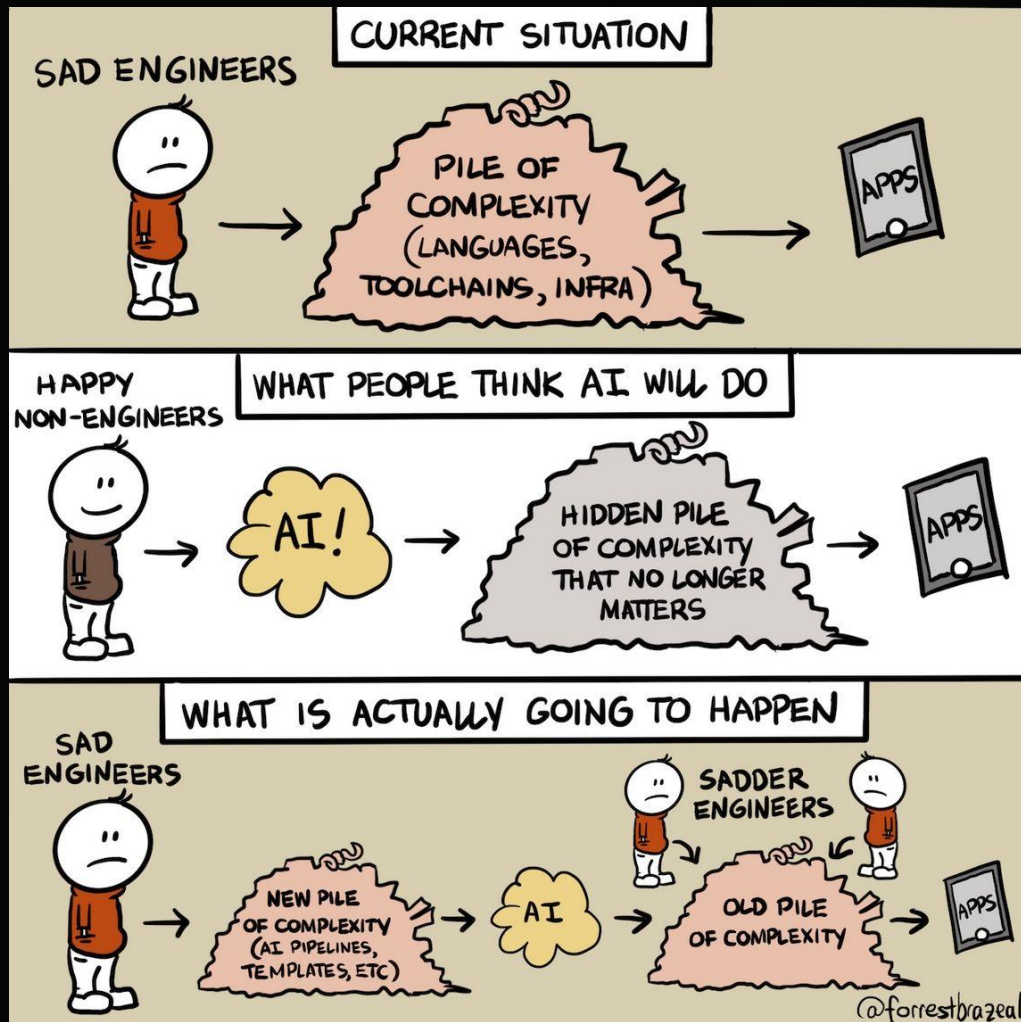
GENAI

**“OMG! Think of
the savings!”
- Management**

All this DevOps Stuff is “So 2019”



The Real Dystopian Future Of AI Gone Wrong!



Accept that GenAI is Real, but See the Reality!



**“That’s not AI, that’s three IF statements in a trench coat”
- Joseph Ruscio**

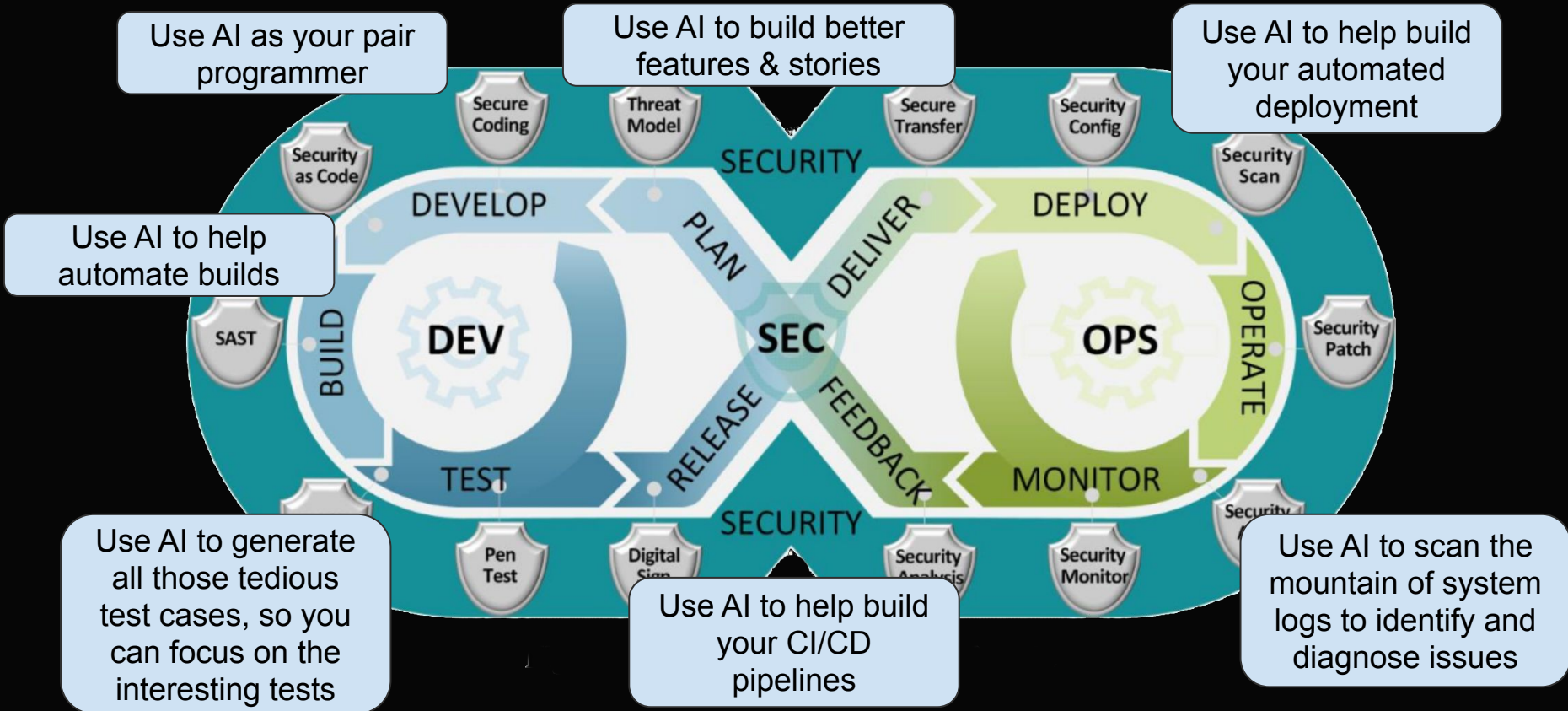
How do we save ourselves and our missions?

AI does not replace NI!

AI only succeeds as an enhancement for NI!

Natural Intelligence (NI)

Partners With Your AI for DevSecOps Execution



The more you do “as code” the more AI can help, but never use a “public” AI @ work!

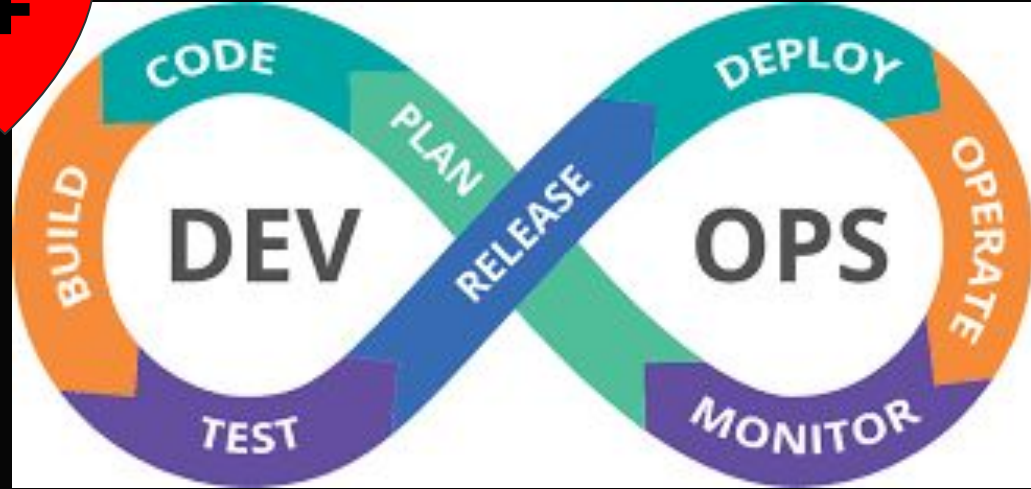
Use AI for Those Natural Human Limitations

Some of us kinda suck at:

1. Writing good stories in the backlog
2. Remembering all those pesky libraries and APIs
3. Doing all the required code comments
4. Writing documentation
5. Building flow charts and sequence diagrams
6. Writing all those unit tests
7. Writing pipeline definitions
8. Writing soooooo many PowerPoints
9. Writing status reports

...But Never “Just Trust It” to Be Correct!

Embrace AI for What It Is...



...A Useful Tool in Your DevOps Journey

DevOps Resources

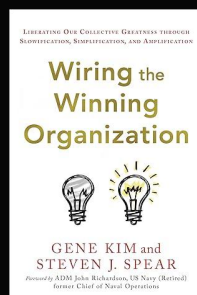
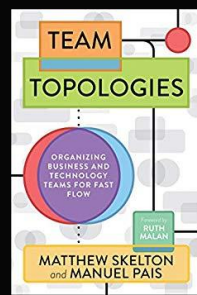
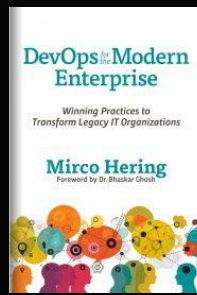
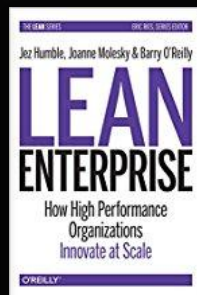
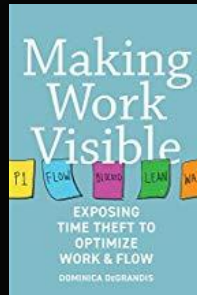
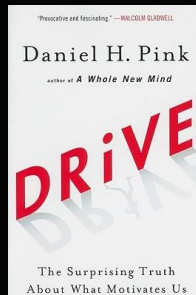
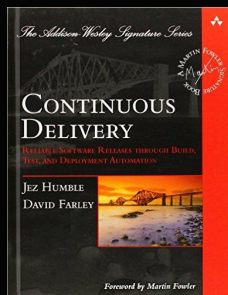
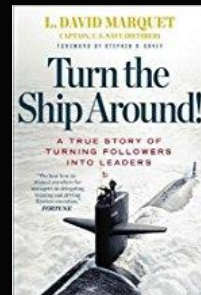
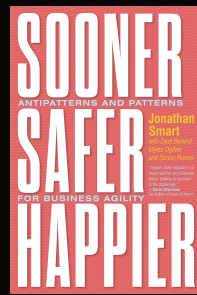
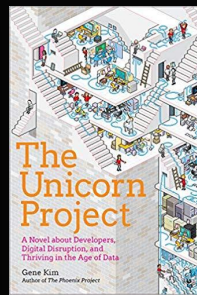
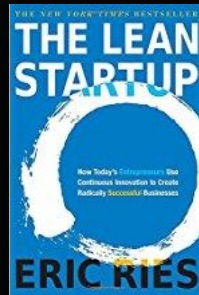
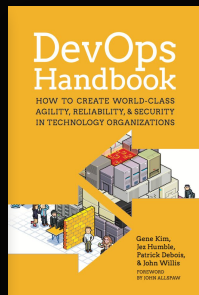
<https://devopsfordefense.org/resources/>

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<https://github.com/jondavid-black/DevOpsForDefense>
devopsfordefense@gmail.com

Books / Publications:

Conference Presentations (YouTube):

- DevOps Enterprise Summit (DOES)
- IT Revolution
- Velocity
- GoTo



What's a good meetup topic?

>>> I'm hosting a DevOps for Defense meetup on Thursday. What would be a good presentation topic that includes DevOps and Generative AI? A great presentation topic that combines DevOps and generative AI could be "Leveraging Generative AI to Improve DevOps Practices in Defense Organizations." Here are some ideas you could cover in your presentation:

1. Overview of DevOps practices and their importance in defense organizations
 - * Explain the key principles of DevOps, such as continuous integration, delivery, and deployment, and how they can help defense organizations improve their software development and delivery processes.
2. Introduction to generative AI and its potential impact on software development
 - * Provide an overview of generative AI technologies, such as code generation, automated testing, and refactoring, and how they can automate certain aspects of software development.
3. Opportunities for integrating generative AI into DevOps practices in defense organizations
 - * Discuss the potential benefits of using generative AI to improve DevOps practices, such as faster development cycles, better code quality, and more efficient use of resources.
 - * Explain how generative AI can help defense organizations automate repetitive tasks, freeing up developers to focus on higher-level tasks and decision-making.
4. Challenges and limitations of using generative AI in defense organizations
 - * Discuss the potential risks and challenges of using generative AI in defense organizations, such as security concerns, ethical considerations, and regulatory compliance.
 - * Explain how defense organizations can mitigate these risks by implementing appropriate governance structures, training programs, and quality control measures.
5. Real-world examples and case studies of successful DevOps and generative AI integrations in defense organizations
 - * Provide concrete examples and case studies of defense organizations that have successfully integrated generative AI into their DevOps practices, such as the US Department of Defense or the UK Ministry of Defence.
 - * Highlight the key success factors and best practices for implementing generative AI in defense organizations.

Overall, this presentation topic can help defense organizations understand how they can leverage generative AI to improve their DevOps practices, while also addressing potential risks and challenges. By providing concrete examples and case studies, you can help inspire and motivate defense organizations to explore the potential of generative AI in their own software development and delivery processes.

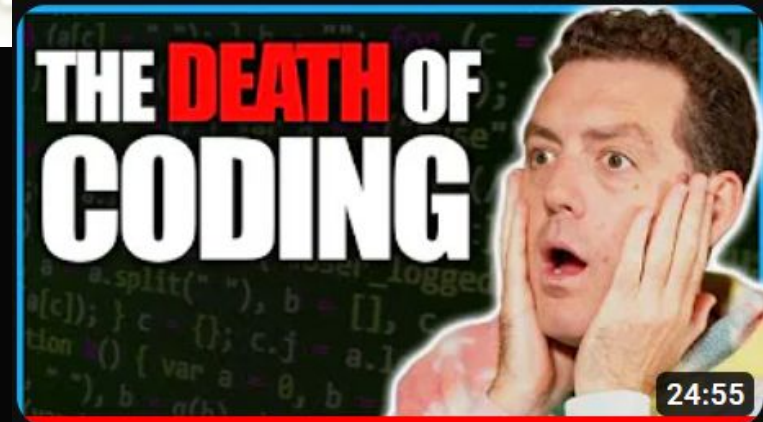
Will generative AI replace developers?

No, generative AI is unlikely to completely replace developers in the foreseeable future. While AI can automate certain aspects of software development, such as code generation, testing, and refactoring, it cannot fully replicate the creativity, intuition, and decision-making skills of human developers.

In fact, generative AI has the potential to augment and enhance the work of developers by enabling them to focus on higher-level tasks and decision-making, while leaving the repetitive and time-consuming aspects of coding to AI tools. This can lead to faster development cycles, better code quality, and more efficient use of resources.

Moreover, software development is a highly complex and dynamic field that requires creativity, problem-solving, and critical thinking skills, which are difficult for AI to replicate. As such, it is unlikely that generative AI will replace developers entirely, but rather, it will change the nature of their work and enable them to focus on more strategic and value-added tasks.

In summary, while generative AI has the potential to significantly impact software development, it is unlikely to completely replace developers in the foreseeable future. Instead, AI tools are likely to evolve alongside human developers, enabling them to work together more efficiently and effectively.



Will generative AI replace agile and devops practices in software development?

- Generative AI has the potential to significantly impact software development by automating certain aspects of coding, testing, and refactoring
- However, it is unlikely to replace Agile and DevOps practices entirely, as these methodologies prioritize collaboration, communication, and cultural alignment, which cannot be easily automated or replaced by AI
- Instead, generative AI can complement Agile and DevOps practices by enabling developers to focus on higher-level tasks and decision-making, leading to faster development cycles, better code quality, and more efficient use of resources
- In summary, while generative AI has the potential to transform software development, it will likely evolve to incorporate new AI technologies and tools within the framework of Agile and DevOps methodologies.

