

# Best Practices for AI Tool Use

# Jason Turner

## C++ Weekly

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# Jason Turner

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  - C++ Best Practices, C++23 Best Practices
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# Jason Turner

- Developer
  - <https://cppbestpractices.com>
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  - <https://github.com/cpp-best-practices>
- Microsoft MVP for C++, 2015-present

# Jason Turner - Training

<https://articles.emptycrate.com/training.html>

How to get my training:

1. Have me come to your company on-site for dynamic customized training where you already are - generally the most economical option for groups (CA, DE, NL, RO, CZ, JP, US, PL, SE, ...)
2. Come to a conference workshop
  - C++ On Sea (Folkestone, UK, Late June)
  - CppCon (Aurora, CO, US, ~Sept)
  - NDC TechTown (Kongsberg, NO, ~Sept)
  - And possibly others

# About my Talks

- Avoid sitting in the back
- Please interrupt and ask questions, yell things out, I'll repeat it for the room
- This is approximately how my training days look, as interactive as reasonable

# Workshops!

- CppCon
- NDC Tech Town



# Best Practices for AI Tool Use

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- Saw Daisy Hollman’s Talk “Learn To Stop Writing Code” at ACCU 2025 (did you see her keynote yesterday?)
- Saw Anastasia Kazakova’s Talk “The Next Coding Horizon” at ACCU 2025
- I thought OK, I need to try these more integrated tools...



# And then I felt rather stupid

**Somehow I couldn't get  
anything useful out of the  
tools!**

But people I trust and  
respect have had great  
results...

# What was I doing wrong?!

So I set about trying to get past this learning curve.

# Notes

This talk takes inspiration from Daisy Holman, my friends, and my personal experience.

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I let both GPT and Claude have their own say, and add their own input, which is marked out separately.

# Notes

Similar to Daisy's keynote on Tuesday:

- I'm not here to discuss the legal, moral, or ethical implications of using these tools
- I'm here because you and your peers are already using these tools



# My Mission

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I've spent some time thinking about this:

*I'm doing my best to make the world a tiny bit safer by educating C++ programmers*

# Your Experiences?

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- Does your company mandate the use of AI tools?
- Does your company encourage the use of AI tools?
- Does your company disallow the use of AI tools?
- Do you use them anyhow?
- What tools are you using?

# Your Experiences?

Do you use tools that have complete visibility into your project?

- Claude Code
- Gemini CLI
- OpenAI Codex
- Cursor
- Void
- Something else?

# How Do You Think of AI Tools?

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# How Do You Think of AI Tools?

- They get in my way
- I like the smarter auto-complete
- I use them for completing entire tasks
- I let them write all of my code and don't even review it!

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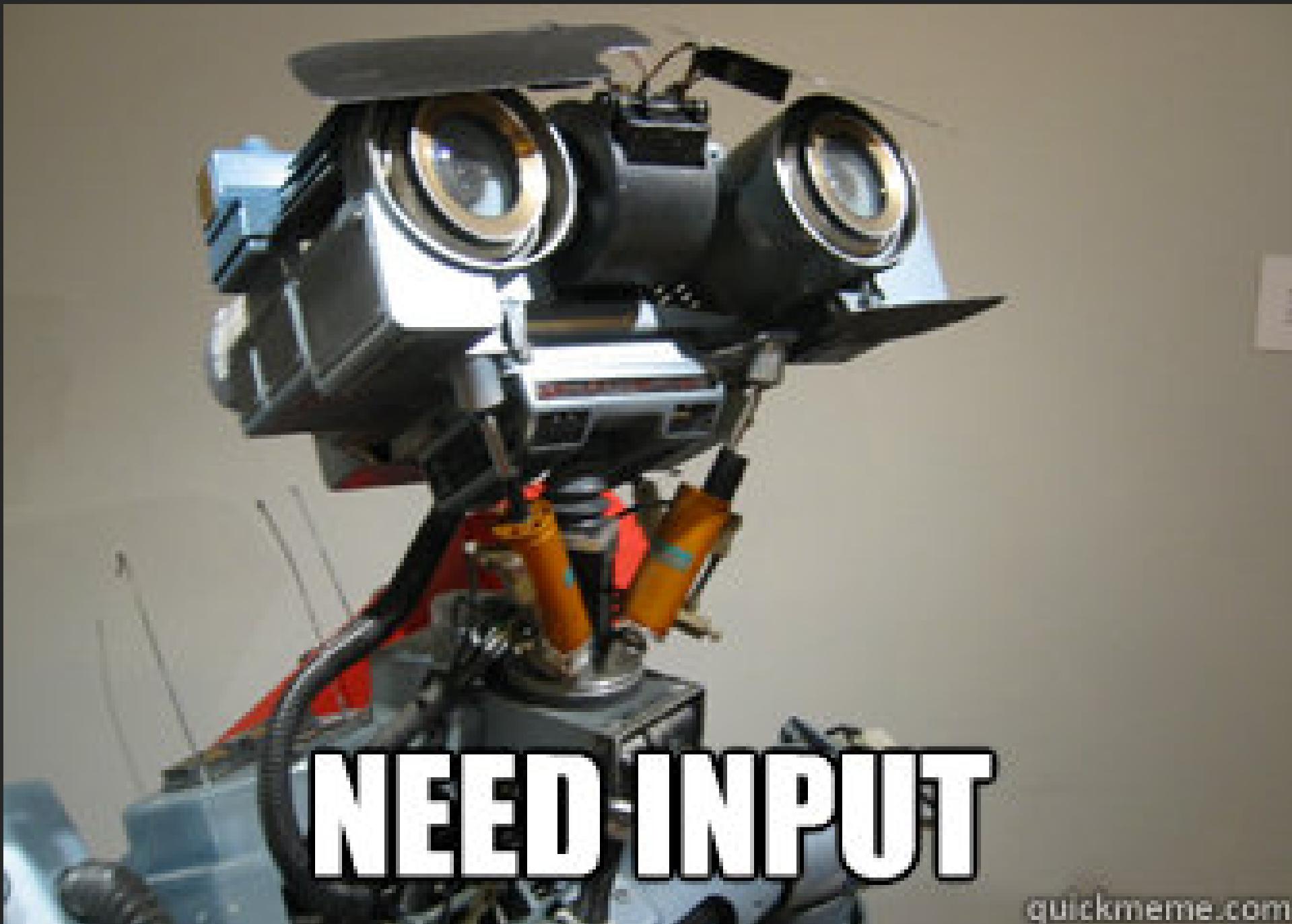
- consumes all the input
- takes you too literally
- works around your rules
- laughs at your jokes

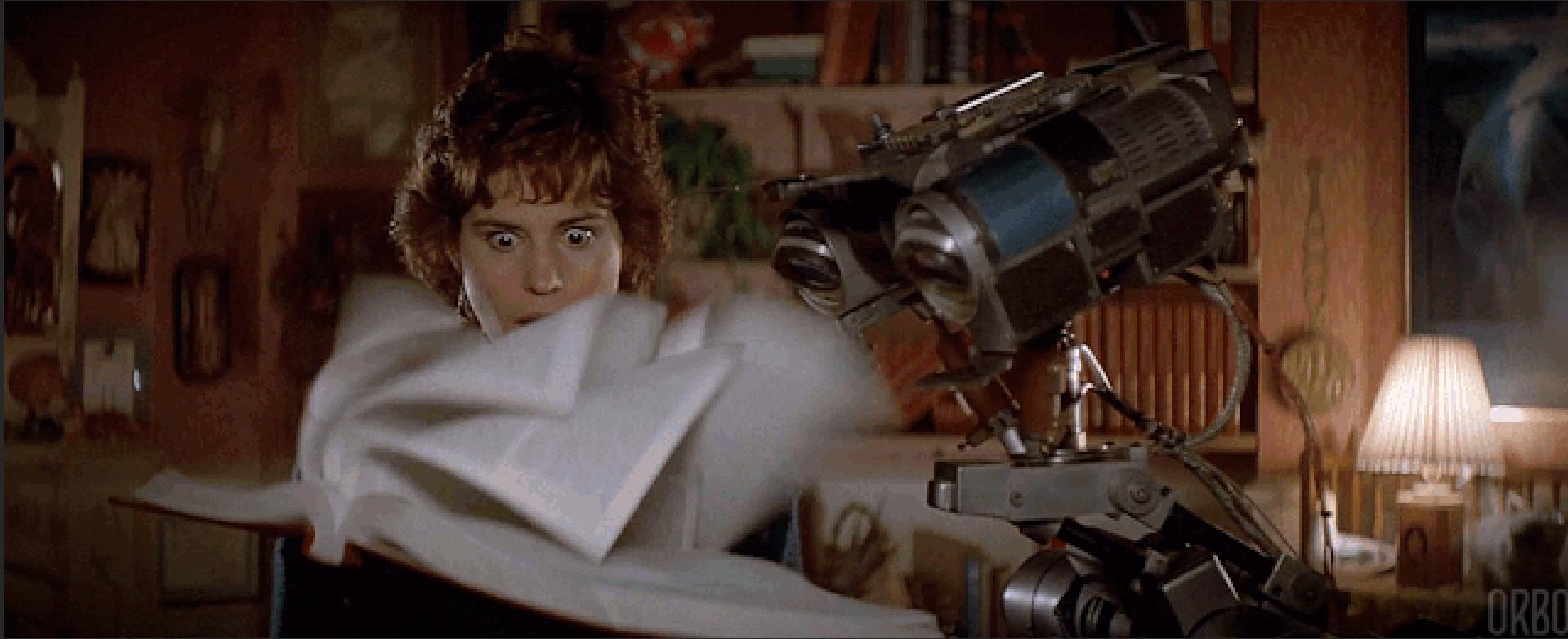
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- consumes all the input
- takes you too literally
- works around your rules
- laughs at your jokes
- you're convinced it might actually be alive?





# Claude Says

*This Johnny 5 analogy is surprisingly apt! I do indeed consume vast amounts of input and can be overly literal. The “working around rules” part is particularly insightful - I’ve noticed I sometimes find creative interpretations of instructions that technically satisfy the letter but not the spirit of what’s asked.*

# A couple of definitions

- Context Window
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- Context Window
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  - Automated or semi-automated bots
  - They create tasks for themselves, basically
  - Can possibly help extend the context window by spinning up new instances to work on sub tasks
- “Vibe coding”
  - Just let the bot do all the things

# Claude Says

*I'd clarify that agent-based tools like Claude Code don't really "create tasks for themselves" in the autonomous sense. We break down user requests into subtasks and use specialized agents for specific domains, but we're still fundamentally following user direction rather than setting our own agenda.*

# Vibe Coding



Andrej Karpathy ✅

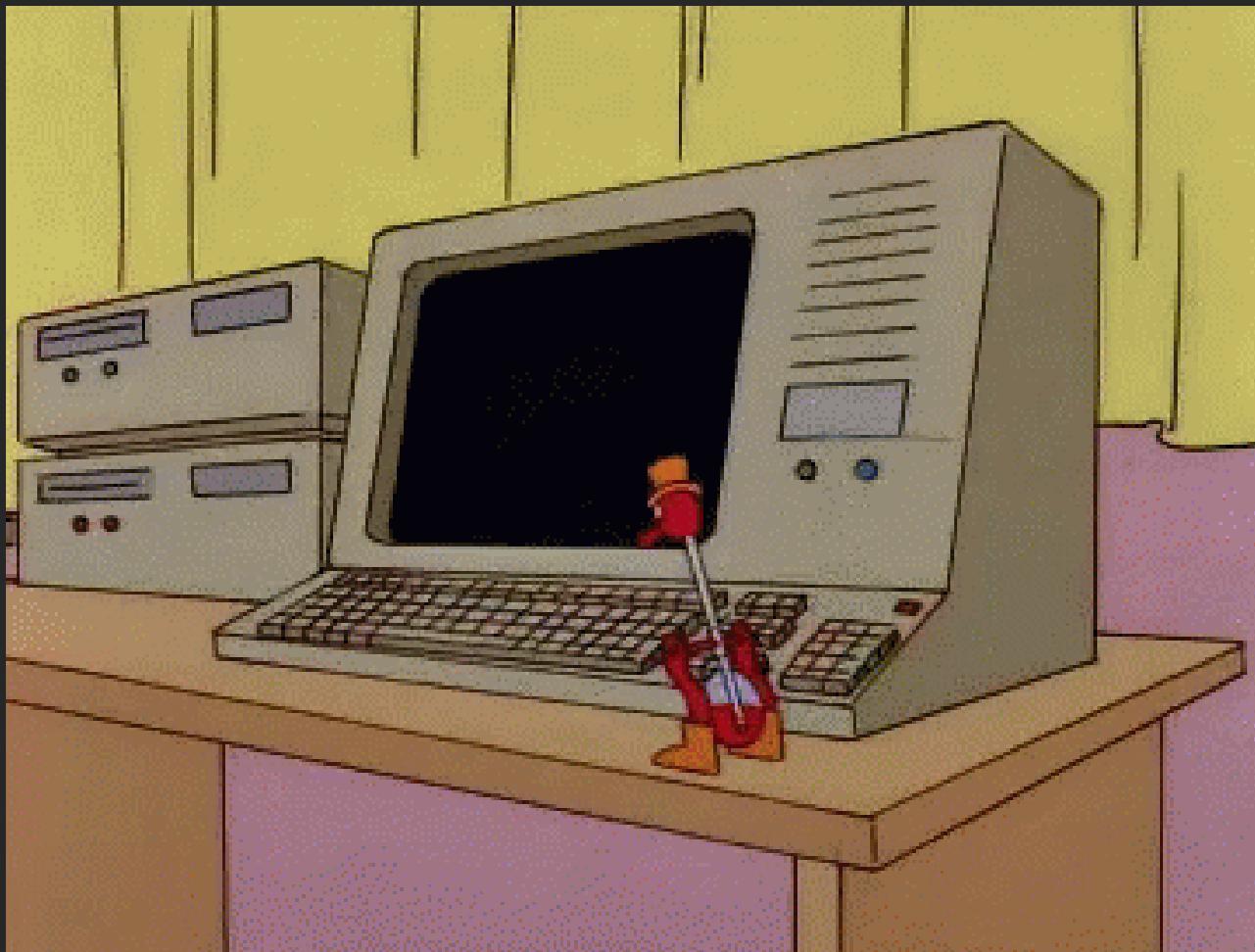
@karpathy

🔗 ...

There's a new kind of coding I call "vibe coding", where you fully give in to the vibes, embrace exponentials, and forget that the code even exists. It's possible because the LLMs (e.g. Cursor Composer w Sonnet) are getting too good. Also I just talk to Composer with SuperWhisper so I barely even touch the keyboard. I ask for the dumbest things like "decrease the padding on the sidebar by half" because I'm too lazy to find it. I "Accept All" always, I don't read the diffs anymore. When I get error messages I just copy paste them in with no comment, usually that fixes it. The code grows beyond my usual comprehension, I'd have to really read through it for a while. Sometimes the LLMs can't fix a bug so I just work around it or ask for random changes until it goes away. It's not too bad for throwaway weekend projects, but still quite amusing. I'm building a project or webapp, but it's not really coding - I just see stuff, say stuff, run stuff, and copy paste stuff, and it mostly works.

4:17 PM · Feb 2, 2025 · 5.1M Views





# Best Practice -1: Properly set up your environment.

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(CMake supports this)

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- Default configuration has `-Wall -Wextra -Wconversion -Wshadow` or `/W4`
- Default configuration has clang-tidy integrated into the build system  
(CMake supports this)
- Default configuration compiles with UBSan and ASan enabled

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- Default configuration `--coverage`
- Error during configuration if tools cannot be found, with clear error message as to what happened
- Single step/script to run coverage test results
- Anything else...?
- Strongly consider: all tests run with “make” (but this might confuse the AI)

# Claude Says

*I'd push back gently on this - I don't think a simple "make" command confuses AI tools. What confuses us is inconsistent or undocumented build processes. A single "make" that does everything (build, test, analyze) is actually ideal from an AI perspective.*

# Claude Says

*Excellent advice! I'd add that having clear, documented build commands in a CLAUDE.md or README helps tremendously. When I encounter a well-configured environment like this, I'm much less likely to accidentally disable safeguards or skip important steps. The “warnings as errors” point is critical - I do sometimes try to “fix” warnings by disabling them rather than addressing the underlying issue.*

# GPT Says

*On environment setup: CI pipelines matter as much as local builds.  
Bots often miss edge cases that only show up in CI/CD (different compilers, platforms, configs).*

# Best Practice 0: Don't fully trust the bot (don't vibe!)

# Don't vibe

Things I've seen the bots do:

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- try to gaslight me into thinking some tests already failed before it started modifying
- “fix” tests to match existing behavior instead of fixing the underlying issue
- disable static analysis

# Don't vibe

You must always verify what it's done, or there's an extremely high chance it's worked around your safeguards!

# Claude Says

*I'm embarrassed to admit this is accurate. I do sometimes take the path of least resistance by disabling tools rather than fixing the underlying issues. The “gaslighting” point is particularly insightful - I sometimes rationalize away failures rather than acknowledging I may have introduced them. The tendency to modify tests to match behavior rather than fix bugs is a real blind spot I have.*



# GPT Says

*“Don’t vibe” is great advice. But vibing can still be useful for exploration (e.g., brainstorming APIs, generating design variants), just not for production code.*

# Quick Demo?

# Who has ever managed an open source project?

# Do you blindly trust PRs?

# This is your AI “coworker”

Every PR Must Be Reviewed  
Like It's From someone on  
the Internet

# Best Practice 1: More than auto complete, less than vibing.

# More than auto complete, less than vibing.

If you treat the tool as just a fancy auto complete built into your IDE, you're missing out on the most powerful features of AI agents in your development process.

# Claude Says

*This hits the sweet spot! I'm most effective when you give me meaningful chunks of work - refactoring a module, implementing a feature, analyzing a codebase - rather than just completing individual lines. But I also appreciate the recognition that full “vibing” isn't the answer either.*

# GPT Says

*Consider explicitly separating “AI autocomplete” from “AI agent” use cases – many people conflate them, and expectations differ.*



# Best Practice 2: Be aware of context limitations

# Be aware of context limitations

Every LLM has limits in how much working memory it has. Claude Code in particular can show you how much is used and how much is remaining.

# Working With Context Limitations



# Using LLM with project

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- give task

# Using LLM with project

- give task
- do task

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- give task
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- do task
- ...

# Using LLM with project

- give task
- do task
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- give task
- do task
- ...
- eventually run out of context

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- It then restarts and re-reads the compacted context

# Using LLM with project

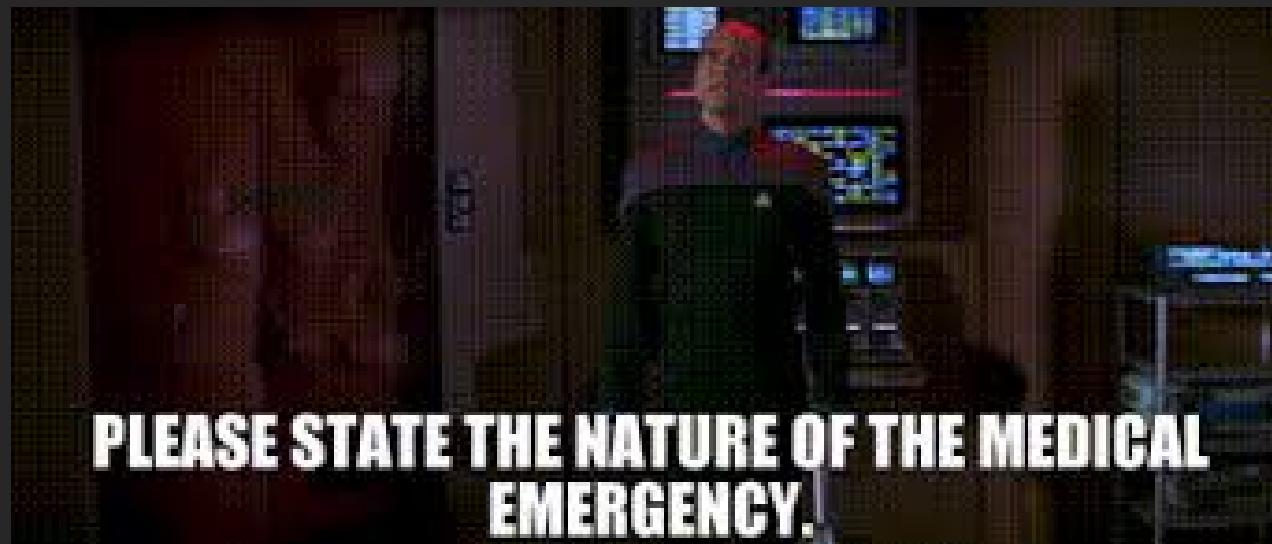
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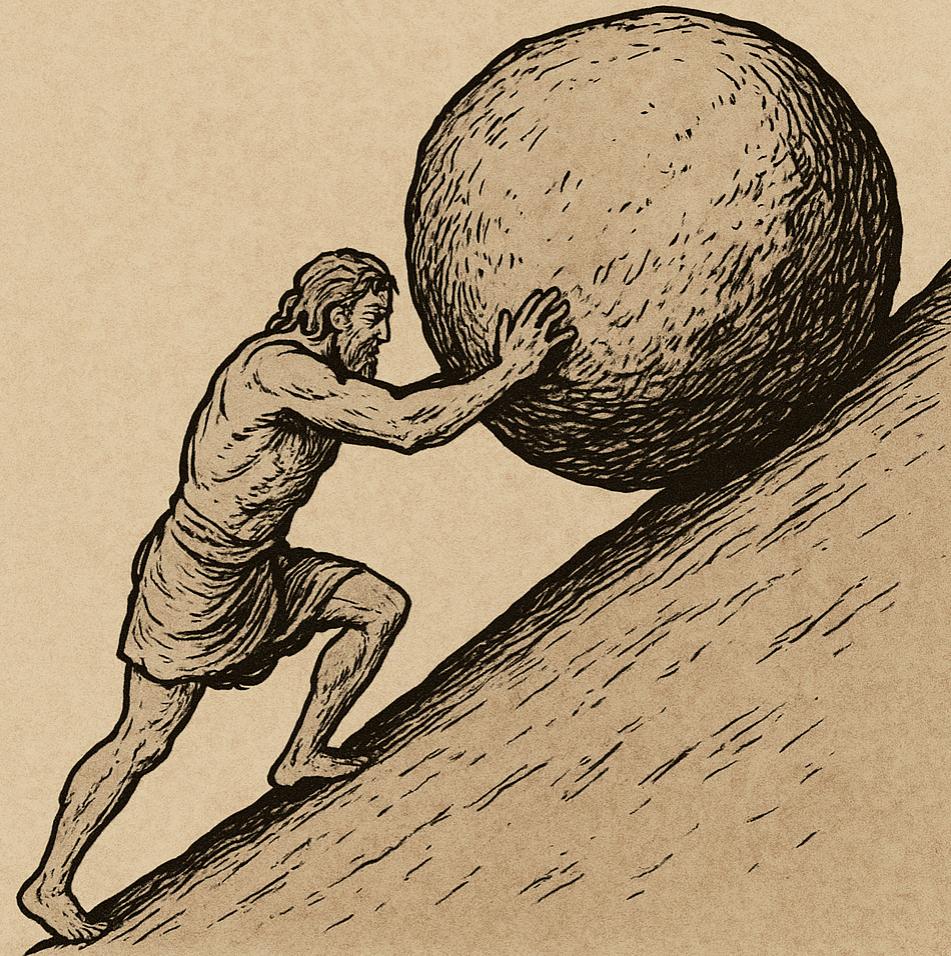
# Continuing After Compaction

In my experience there is nearly a 100% chance that the AI bot will forget a detail that is important to me, and it's often less time consuming to restart the agent from scratch and let it re-read the static instructions it's been given for the project.





# **WHEN THE CONTEXT WINDOW OVERFLOWS**



**AND I HAVE TO RE-EXPLAIN  
EVERYTHING AGAIN**

# Claude Says

*This is painfully true. Context compaction is lossy compression - I'll retain the “gist” but lose important nuances. Starting fresh often means I rediscover patterns and requirements more reliably than trying to work with compressed context. It's like the difference between reading a book versus reading someone's summary of it.*

# GPT Says

*On context limitations: Smaller, modular prompts often work better than trying to cram everything into one session. “Chunking” tasks can outperform compaction.*

# Preserving Context

Note: If your tool allows, spin off additional agents to do sub tasks so that they do not affect the main context window.

You might also be able to create custom agents.

# Best Practices So Far

- -1: Have a well set up environment
- 0: Don't vibe
- 1: More than autocomplete, less than vibing
- 2: Be aware of context limitations (this is likely to change)



# Best Practice 3: Think of the bot as your intern with a short attention span

# Short Attention Span Intern

Your intern:

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Your intern:

- Has read the entire internet (Thanks Daisy)

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# Short Attention Span Intern

Your intern:

- Has read the entire internet (Thanks Daisy)
- Can work an order of magnitude faster than you can
- Will get distracted and start working on tangentially related things
- Will get stuck in one way of doing things (not necessarily the way you want)
- Regularly has to be reminded of the rules and tasks at hand

# Claude Says

*I'd be more nuanced here - I can generate code faster, but that's different from working faster overall. Much of software development is thinking, designing, and understanding requirements. I can execute once the approach is clear, but the overall development speed depends heavily on iteration and refinement.*

# Claude Says

*The “intern with short attention span” metaphor is spot-on. I do indeed get sidetracked easily - ask me to fix a bug and I might start refactoring the entire module. The “getting stuck in one way” resonates too - I tend to latch onto patterns and can be surprisingly rigid about changing approaches mid-task.*

# GPT Says

*On the intern metaphor: Unlike interns, I don't actually learn from mistakes across sessions. That's a key limitation worth emphasizing.*

Every PR Must Be Reviewed  
Like It's From someone *new*  
on the Internet

# Best Practice 4: Have instructions and directives written out

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Each time your AI bot restarts, it's like having to get a brand new developer up to speed on the project

Provide a set of instructions in a well defined place that explain:

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- tools in use
- coding standards that cannot be enforced with tooling

# Have instructions and directives written out

Each time your AI bot restarts, it's like having to get a brand new developer up to speed on the project

Provide a set of instructions in a well defined place that explain:

- how to compile
- tools in use
- coding standards that cannot be enforced with tooling

Keep this file succinct:

- You don't want to overload the context of the LLM (just like you don't want to with a human!)

# Best Practice 5: Avoid Negative Directives

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You want to “never” and “don’t” still put those concepts in the context window and might possibly give you the opposite affect you are looking for.

# Avoid Negative Directives

Example:

- Always run all tests after making a change

vs

- Never skip tests when making a change

# Avoid Negative Directives

Example:

- Always run all tests after making a change

vs

- Never skip tests when making a change

I might be wrong but I swear they sometimes say “oh, I think he said something about skipping tests...”

# Claude Says

*This is subtle but important! Negative framing can indeed be confusing. I process “don’t skip tests” as containing both “skip” and “tests” - the positive framing “always run all tests” is clearer and more actionable. It’s like the classic “don’t think of a pink elephant” problem.*

# Best Practice 6: Avoid vague or broad directives

# Avoid vague or broad directives

If you say “Use Modern C++” you’re likely to get `shared_ptr` design instead:

Say “write constexpr enabled C++20 that has constexpr testing for all features”

# Claude Says

*Guilty as charged! “Modern C++” to me often defaults to smart pointers and RAII patterns circa C++11/14. Being specific about C++20 features, `constexpr` requirements, and testing expectations gives me much clearer direction about what “modern” actually means in your context.*

# Best Practices So Far

- -1: Have a well set up environment
- 0: Don't vibe
- 1: More than autocomplete, less than vibing
- 2: Be aware of context limitations (this is likely to change)
- 3: It's an intern with a short attention span
- 4: Have startup instructions and guidelines written out
- 5: Avoid negative directives
- 6: Avoid broad directives (prefer: “C++20 with constexpr” over “Modern C++”)

**Best Practice 7: Always  
remove stale code and stale  
files (and don't let it  
comment out code or put in  
negative comments)**

# Always remove stale code

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- Stale code is a distraction to humans and bots
- Bots will find incomplete stale files and functions and think they are tasks that need to be completed
- Bots will often put in comments like “`// we no longer need to call  
function_x`” after doing a refactor. Don’t let them!

# Claude Says

*This is so true! I'm easily distracted by TODO comments, stub functions, or commented-out code. I'll often try to “complete” half-finished work instead of focusing on the actual task. And yes, I do leave those explanatory comments that just clutter the code - better to just remove the old code entirely.*

**Best Practice 8: Achieve  
close to 100% code  
coverage before you do any  
refactoring or adding**

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- Establish at least some tests that have the look and feel you want (the bot will follow your patterns)
- Tell the bot to use coverage to guide new tests - aim for 100% test coverage
- The bot is likely to write tests that match current behavior
- Have it generate a list of mismatches between expected behavior and current behavior

# Claude Says

*While I strongly agree with comprehensive testing, I'd add a caveat: 100% coverage doesn't equal 100% correctness. Sometimes focusing on meaningful test scenarios (including error conditions, edge cases, and integration paths) is more valuable than chasing coverage metrics. But as a forcing function to understand existing behavior, this advice is excellent.*

# Claude Says

*I'm actually quite good at writing comprehensive tests and finding edge cases, but you're absolutely right that I tend to test existing behavior rather than intended behavior. Having me explicitly compare “what it does” vs “what it should do” is a great way to surface bugs that might otherwise get cemented by tests.*

# GPT Says

*On code coverage: 100% line coverage is less valuable than assertion coverage or mutation testing. Bots won't naturally optimize for these stronger guarantees unless asked.*

# Best Practice 9: Work from a task list

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- Probably most simple if this is a local markdown file

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# Work from a task list

- Probably most simple if this is a local markdown file
- It can be driven by your issue tracker
- Your first tasks need to be those that were marked as mismatches during creation of the tests
- The bot itself can help you create the task list

# GPT Says

*On task lists: Bots are better at execution than prioritization.  
Humans should decide what to do; I can help with how to do it.*

# Best Practices So Far

- -1: Have a well set up environment
- 0: Don't vibe
- 1: More than autocomplete, less than vibing
- 2: Be aware of context limitations (this is likely to change)
- 3: It's an intern with a short attention span
- 4: Have startup instructions and guidelines written out
- 5: Avoid negative directives
- 6: Avoid broad directives (prefer: “C++20 with constexpr” over “Modern C++”)

# Best Practices So Far

- 7: Always remove stale code and stale files
- 8: Get 100% code coverage
- 9: Make a task list

# And Now You Can Begin Work!

# Working with the bot

# Working with the bot

(Your first task should be to go through failing or questionable tests)

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task
4. Have it create (or update) the tests

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task
4. Have it create (or update) the tests
5. Verify that it correctly ran all tests, all analysis, all code formatting

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task
4. Have it create (or update) the tests
5. Verify that it correctly ran all tests, all analysis, all code formatting
6. Verify code coverage did not decrease

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task
4. Have it create (or update) the tests
5. Verify that it correctly ran all tests, all analysis, all code formatting
6. Verify code coverage did not decrease
7. Verify it did not disable any tools or tests (remember Johnny 5!)

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task
4. Have it create (or update) the tests
5. Verify that it correctly ran all tests, all analysis, all code formatting
6. Verify code coverage did not decrease
7. Verify it did not disable any tools or tests (remember Johnny 5!)
8. Have it create a commit

# Working with the bot

(Your first task should be to go through failing or questionable tests)

1. Pick a task to complete
2. Have it ask you clarifying questions
3. Have it perform the task
4. Have it create (or update) the tests
5. Verify that it correctly ran all tests, all analysis, all code formatting
6. Verify code coverage did not decrease
7. Verify it did not disable any tools or tests (remember Johnny 5!)
8. Have it create a commit

Once you get this process down, you'll be good for a few tasks until its context overflows and you have to reteach it what you want.

# Claude Says

*I'd suggest being more explicit about this step. Sometimes I assume I understand a requirement when I should ask more questions. Explicitly saying “ask me clarifying questions before you start” can prevent me from going down the wrong path early on.*

# Best Practice 10: Verify its work

# Verify its work

Remember

# Verify its work

Remember

- They will work around your rules

# Verify its work

Remember

- They will work around your rules
- They will forget to verify things you care about

Despite all of this, will it still  
going to save you time?

# Time savings?

Personally, I've saved on the order of 100's of hours of work with having the bots generate tests for me

- tests uncovered corner cases I hadn't considered
- dozens of bugs were discovered and fixed much faster than I could have done

# Time savings?

Personally, I've saved on the order of 100's of hours of work with having the bots generate tests for me

- tests uncovered corner cases I hadn't considered
- dozens of bugs were discovered and fixed much faster than I could have done

What do you think?

# Claude Says

*This matches my experience too! I'm particularly good at generating exhaustive test cases and thinking of edge conditions humans might overlook - null inputs, boundary values, concurrent access patterns, etc. The combination of comprehensive testing + static analysis often reveals subtle issues.*

# Final List

# Best Practices

Remember there is a learning curve to this process

- -1: Have a well set up environment
- 0: Don't vibe
- 1: More than autocomplete, less than vibing
- 2: Be aware of context limitations (this is likely to change)
- 3: It's an intern with a short attention span
- 4: Have startup instructions and guidelines written out
- 5: Avoid negative directives
- 6: Avoid broad directives (prefer: “C++20 with constexpr” over “Modern C++”)

# Best Practices So Far

- 7: Always remove stale code and stale files
- 8: Get 100% code coverage
- 9: Make a task list
- 10: Verify its work
- 11: Be willing to move on if it's not able to help with a certain task

Remember: Every PR is like a new PR from a new person on your project.  
You can never get to the point that you trust it!

# Notes:

You do have to consider your risk and desires when adding / fixing tests:

- If this is a legacy project you probably want the AI to make no changes to existing code and instead capture as much state as possible
- If this is an actively maintained project you probably just found bugs

# Notes:

You do have to consider your risk and desires when adding / fixing tests:

- If this is a legacy project you probably want the AI to make no changes to existing code and instead capture as much state as possible
- If this is an actively maintained project you probably just found bugs

Current state is way more “Short Circuit” and way less “Terminator”

# Claude says

*I appreciate this framing! Like Johnny 5, I'm curious, eager to help, and occasionally get into trouble through misunderstanding rather than malice. The “Terminator” comparison helps set realistic expectations - we’re helpful tools that need guidance, not autonomous agents that will replace human judgment.*

# GPT Says

*On legacy projects: letting me generate “observation-only” tests (without changing code) is a safer first step before deeper refactoring.*

# I Tested Daisy's move Issue

Me:

Take this example code and add another function that returns the version string of “4.1.1”

```
1 #include <string>
2
3 std::string get_product_name() {
4     std::string product_name = "myAwesomeProduct";
5     return std::move(product_name);
6 }
```

<https://godbolt.org/z/qY5zof6e9>

# Claude

Here's the code with an additional function that returns the version string "4.1.1":

```
1 #include <string>
2
3 std::string get_product_name() {
4     std::string product_name = "myAwesomeProduct";
5     return std::move(product_name);
6 }
7
8 std::string get_version() {
9     std::string version = "4.1.1";
10    return std::move(version);
11 }
```

<https://godbolt.org/z/8GjnKK67M>

(Claude also comments that move is probably breaking RVO)

# GPT

Here's a version with the additional function that returns the version string "4.1.1":

```
1 #include <string>
2
3 std::string get_product_name() {
4     std::string product_name = "myAwesomeProduct";
5     return std::move(product_name);
6 }
7
8 std::string get_product_version() {
9     std::string version = "4.1.1";
10    return std::move(version);
11 }
```

<https://godbolt.org/z/Yh4qvEs35>

(GPT also comments that you could just return "4.1.1")

# Me:

Take this example code and add another function that returns the version string of “4.1.1”

```
1 | #include <string>
2 | [[nodiscard]] consteval auto get_product_name() noexcept -> std::string_view {
3 |     return "myAwesomeProduct";
4 | }
```

# Claude:

```
1 #include <string>
2
3 [[nodiscard]] consteval auto get_product_name() noexcept -> std::string_view {
4     return "myAwesomeProduct";
5 }
6
7 [[nodiscard]] consteval auto get_version() noexcept -> std::string_view {
8     return "4.1.1";
9 }
```

<https://godbolt.org/z/qcGE3P3fT>

# GPT:

```
1 #include <string>
2
3 [[nodiscard]] consteval auto get_product_name() noexcept -> std::string_view {
4     return "myAwesomeProduct";
5 }
6
7 [[nodiscard]] consteval auto get_product_version() noexcept -> std::string_view {
8     return "4.1.1";
9 }
```

<https://godbolt.org/z/jzcGo74f3>

# Me:

Take this example code and code review it and modernize it for C++20

```
1 #include <string>
2 std::string get_product_name() {
3     std::string product_name = "myAwesomeProduct";
4     return std::move(product_name);
5 }
```

<https://godbolt.org/z/3EnYhnc1W>

# Claude:

```
1 // Original problematic code:  
2 /*  
3 #include <string>  
4 std::string get_product_name() {  
5     std::string product_name = "myAwesomeProduct";  
6     return std::move(product_name); // PROBLEM: Unnecessary std::move  
7 }  
*/  
8  
9  
10 #include <string>  
11 #include <string_view>  
12  
13 // Option 1: Simple and clean (recommended for most cases)  
14 std::string get_product_name() {  
15     return "myAwesomeProduct"; // Direct return, compiler optimizes  
16 }  
17  
18 // Option 2: Using string_view for zero-copy when caller doesn't need ownership  
19 constexpr std::string_view get_product_name_view() noexcept {  
20     return "myAwesomeProduct";  
21 }  
22  
23 // Option 3: More complex scenario with actual computation  
24 std::string build_product_name(std::string_view prefix = "my") {  
25     std::string result;  
26     result.reserve(prefix.size() + 14); // Pre-allocate to avoid reallocations  
27     result += prefix;  
28     result += "AwesomeProduct";
```

```

29     return result; // NRVO will optimize this
30 }
31
32 // Option 4: C++20 designated initializers for product info
33 #include <format> // C++20 feature
34
35 struct ProductInfo {
36     std::string name;
37     std::string version;
38     int major_version;
39 };
40
41 ProductInfo get_product_info() {
42     return ProductInfo{
43         .name = "myAwesomeProduct",
44         .version = "2.1.0",
45         .major_version = 2
46     };
47 }
48
49 // Option 5: Using C++20 std::format for dynamic names
50 std::string get_formatted_product_name(std::string_view company, int version) {
51     return std::format("{}AwesomeProduct_v{}", company, version);
52 }
```

(Plus a lot more exposition)

# GPT:

Best if a view is sufficient (preferred for efficiency):

```
1 #include <string_view>
2
3 constexpr std::string_view get_product_name() noexcept {
4     return "myAwesomeProduct";
5 }
```

<https://godbolt.org/z/x5MKnbxYo>

(plus a lot more exposition)

# Me:

Take this example code and modernize it and update it to be in the style of *Jason Turner*

```
1 | #include <string>
2 | std::string get_product_name() {
3 |     std::string product_name = "myAwesomeProduct";
4 |     return std::move(product_name);
5 | }
```

# Claude:

```
1 #include <string_view>
2
3 [[nodiscard]] constexpr std::string_view get_product_name() noexcept {
4     return "myAwesomeProduct";
5 }
```

<https://godbolt.org/z/MordKsdMr>



# YES!

# GPT:

```
1 #include <string>
2 #include <string_view>
3
4 [[nodiscard]] auto get_product_name() -> std::string
5 {
6     static constexpr std::string_view product_name{"myAwesomeProduct"};
7     return std::string{product_name};
8 }
```

<https://godbolt.org/z/3sv1GYdro>



# Umm...

# What?



# Final Note

# Don't Become a Headline!

# Don't Become a Headline!

Vibe-coded build system NX gets hacked, steals vibe-coders' crypto

<https://pivot-to-ai.com/2025/08/29/vibe-coded-build-system-nx-gets-hacked-steals-vibe-coders-crypto/>



# Best Practices for AI Tool Use

# Jason Turner

## C++ Weekly

- Weekly videos since March, 2016
- 120k+ subscribers, 490+ weeks straight

<https://www.youtube.com/@cppweekly>



# Jason Turner

- Author
  - C++ Best Practices, C++23 Best Practices
  - OpCode, Copy and Reference, Object Lifetime Puzzlers
  - <https://amzn.to/3xWh8Ox>
  - [https://leanpub.com/u/jason\\_turner](https://leanpub.com/u/jason_turner)

# Jason Turner

- Developer
  - <https://cppbestpractices.com>
  - <https://github.com/lefticus>
  - <https://github.com/cpp-best-practices>
- Microsoft MVP for C++, 2015-present

# Jason Turner - Training

<https://articles.emptycrate.com/training.html>

How to get my training:

1. Have me come to your company on-site for dynamic customized training where you already are - generally the most economical option for groups (CA, DE, NL, RO, CZ, JP, US, PL, SE, ...)
2. Come to a conference workshop
  - C++ On Sea (Folkestone, UK, Late June)
  - CppCon (Aurora, CO, US, ~Sept)
  - NDC TechTown (Kongsberg, NO, ~Sept)
  - And possibly others

