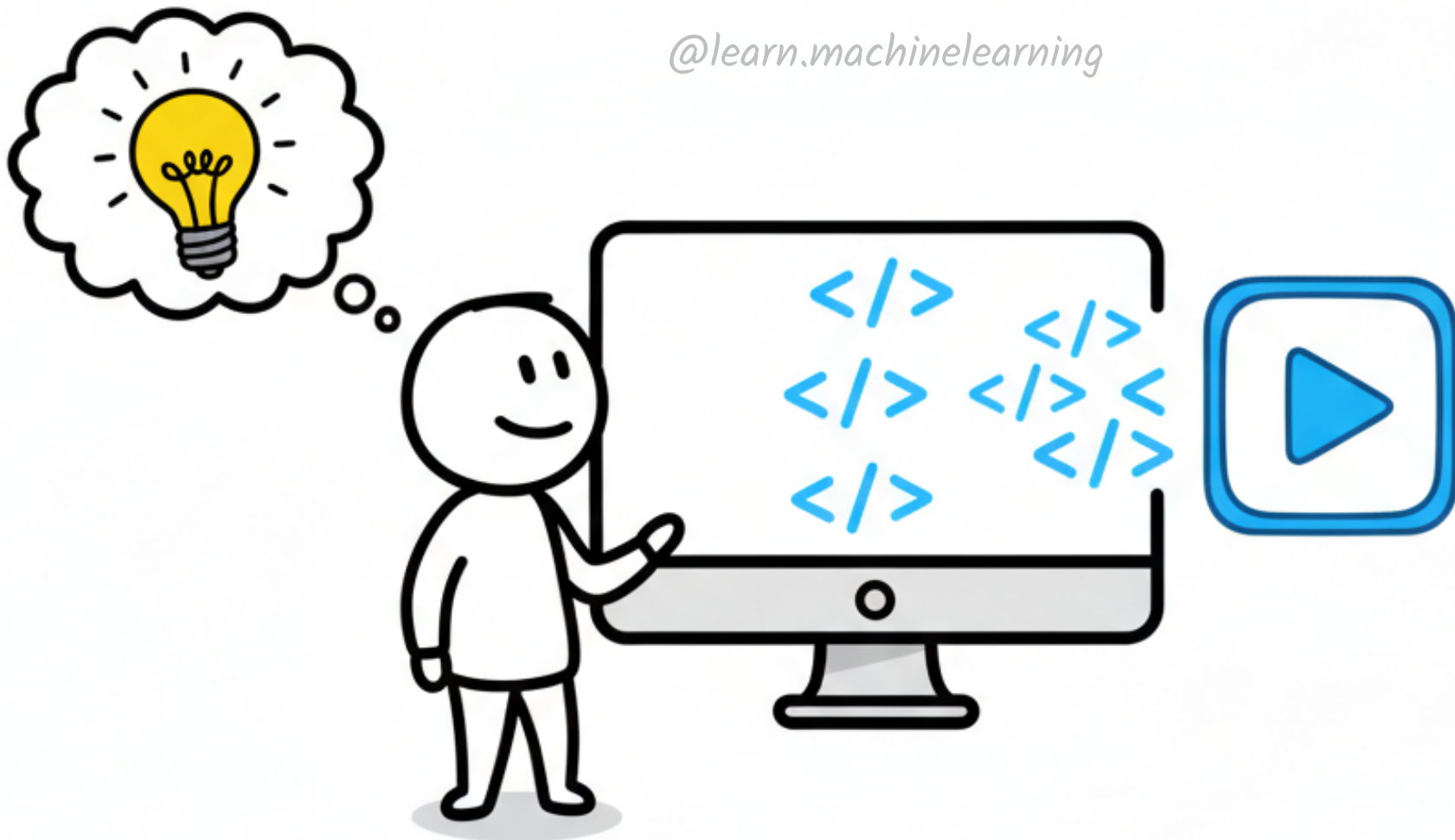


GENERATIVE AI SERIES: DAY 18

Generative AI for Code: From Idea to App!

Watch AI become your coding co-pilot, writing, debugging, and explaining code! 

@learn.machinelearning

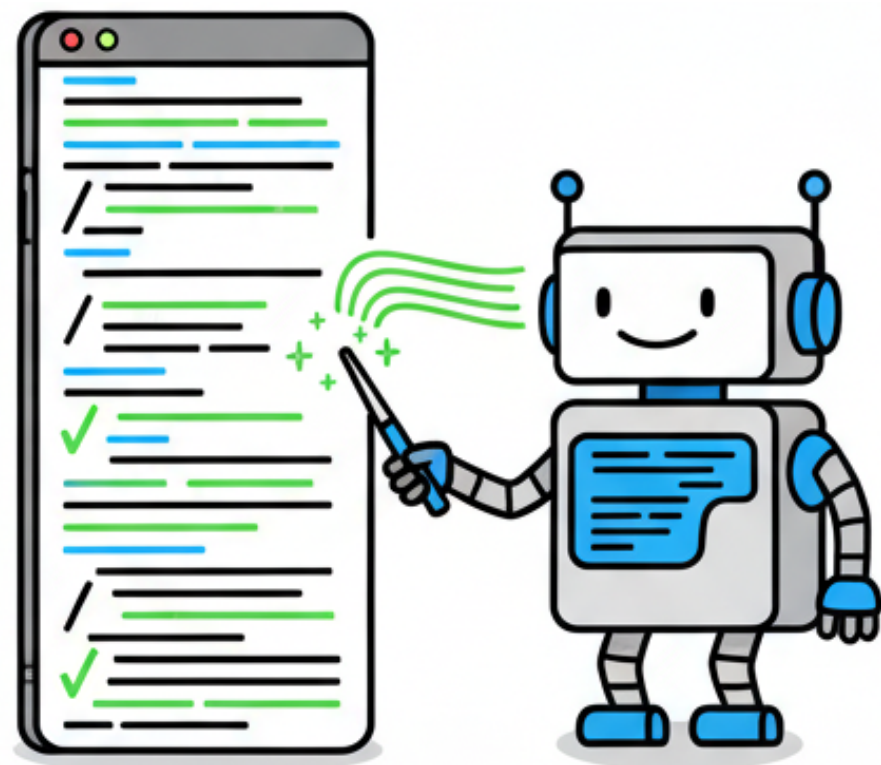
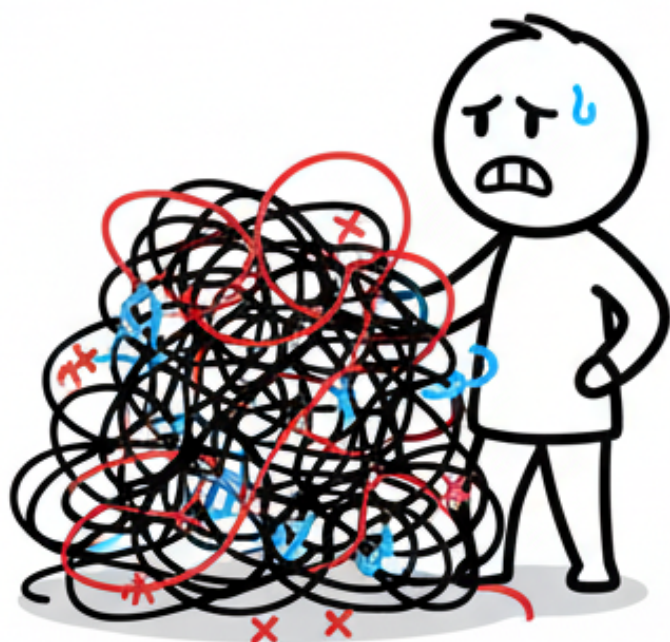


Coding Can Be Tough (AI Can Help!)

Writing code can be repetitive, bug-prone, and sometimes just plain hard! Generative AI tools are stepping in to assist developers:

- Speed up routine tasks
- Help overcome coding blocks
- Improve code quality

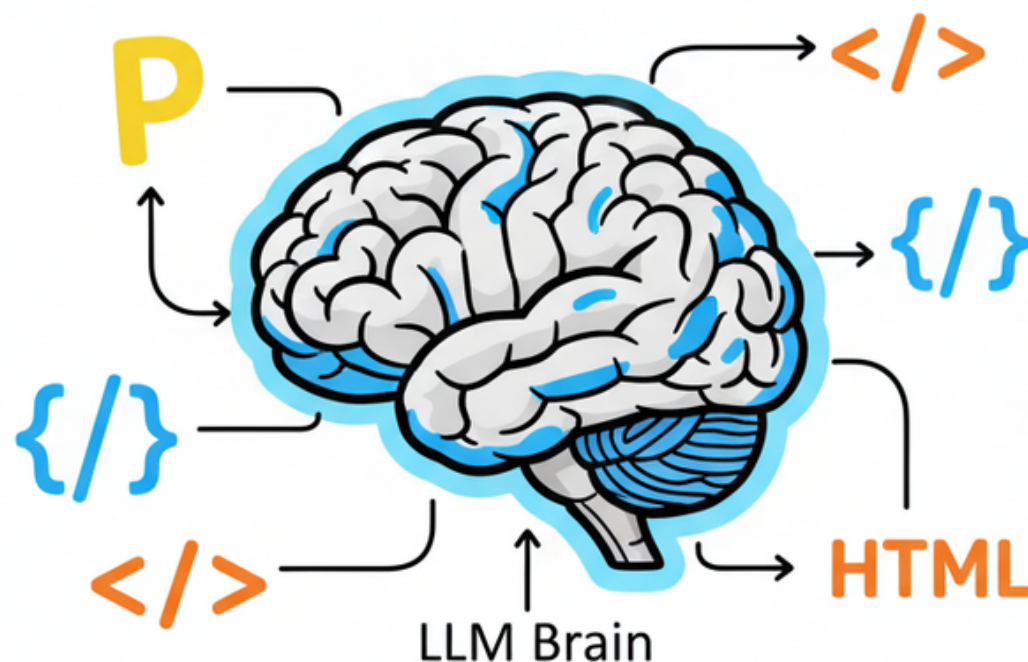
@learn.machinelearning



The Brain: Specialized LLMs

Generative AI for code is primarily powered by Large Language Models (LLMs) that have

- Trained on massive codebases:
Billions of lines of code from Github and other sources *@learn.machinelearning*
- Learned coding patterns: Understanding syntax, common functions, and best practices

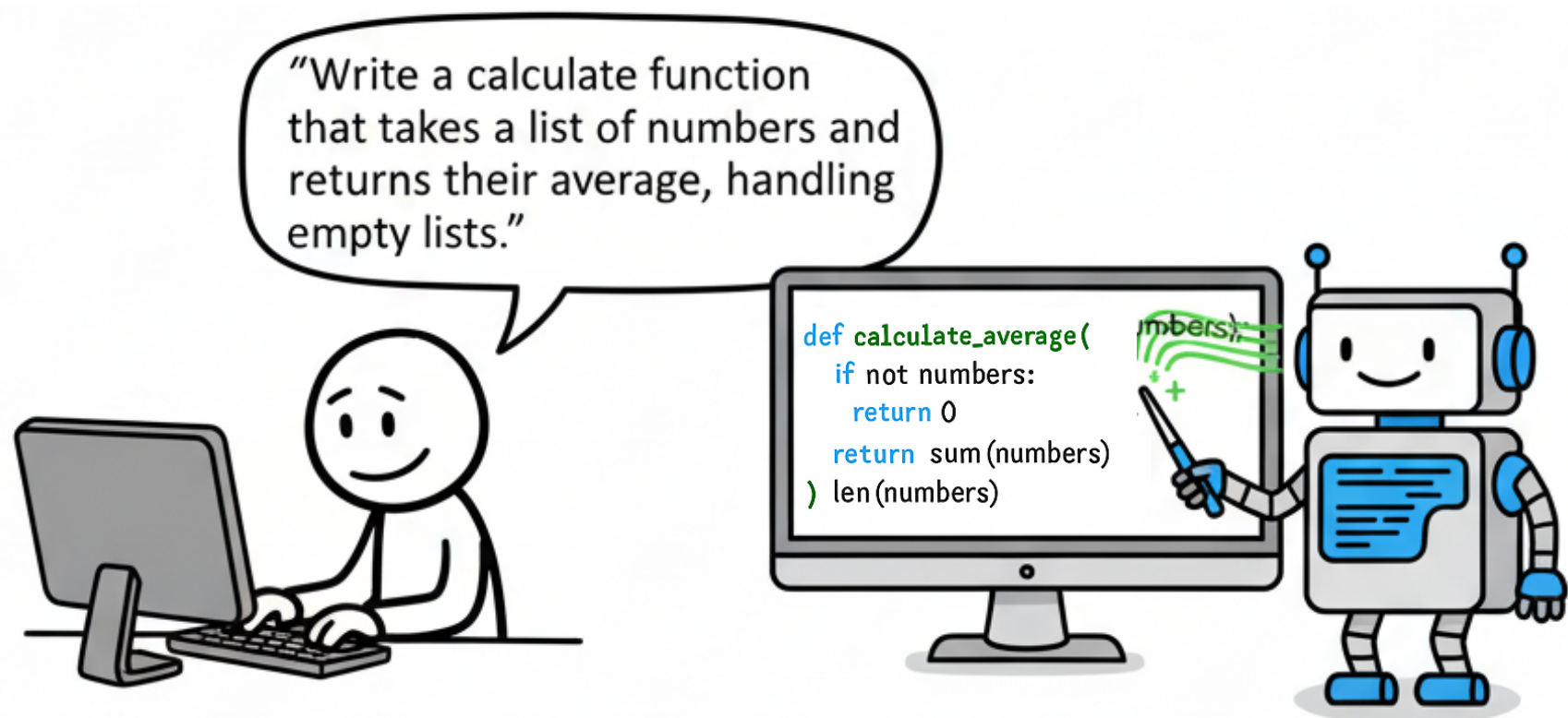


Use Case #1: Writing Code From Scratch

How it helps: You describe what you want in plain English, and the AI generates the corresponding code.

Example Prompt: “Write a Python function that takes a list of numbers and returns their average, handling empty lists.”

@learn.machinelearning

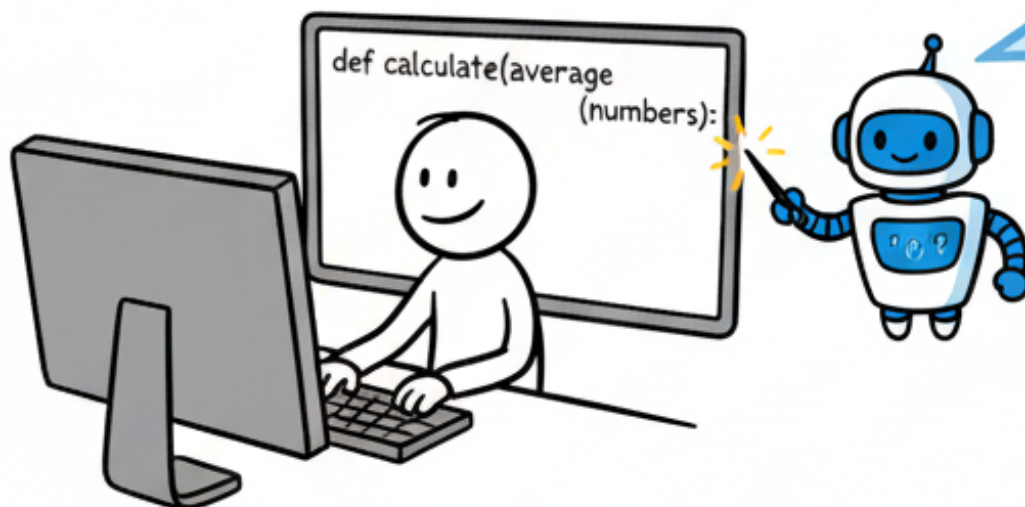


Tools: GitHub Copilot, ChatGPT, Google Bard, Tabnine

Use Case #2: Auto-Completion & Suggestions

- **How it helps:** As you type, the AI suggests the next few lines or an entire function, predicting what you're likely to write.
- **Impact:** Speeds up coding, reduces typos, and helps maintain consistent coding style.
- **Analogy:** Like super-smart autocorrect, but for programming logic!

@learn.machinelearning



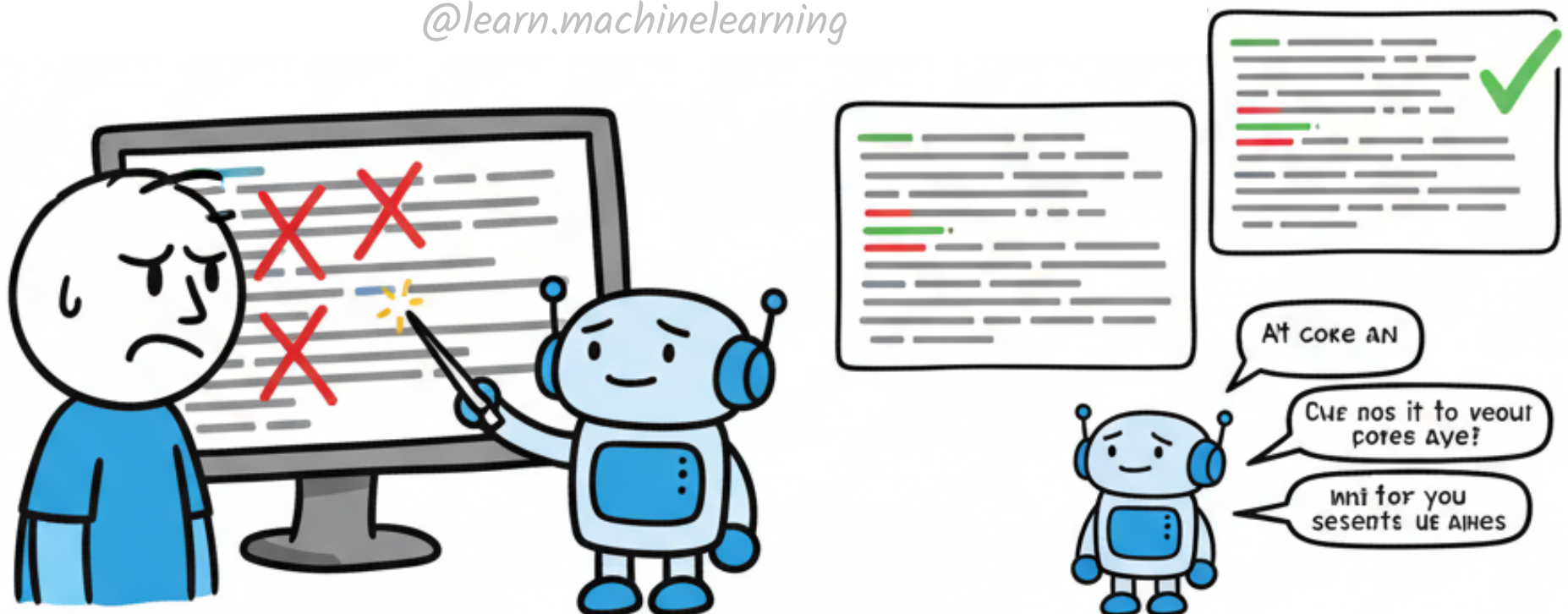
```
if not numbers:  
    return 0  
sum-of numbers = sum 0)  
average = len / len / slox)  
return average
```

Use Case #3: FINDING BUGS & EXPLAINING CODE

Debugging: Paste in problematic code, and the AI can often identify errors and suggest fixes.

Explanation: Paste in a complex piece of code, and the AI can explain what it does in simple terms, even line by line. Great for learning or understanding old codebases!

@learn.machinelearning



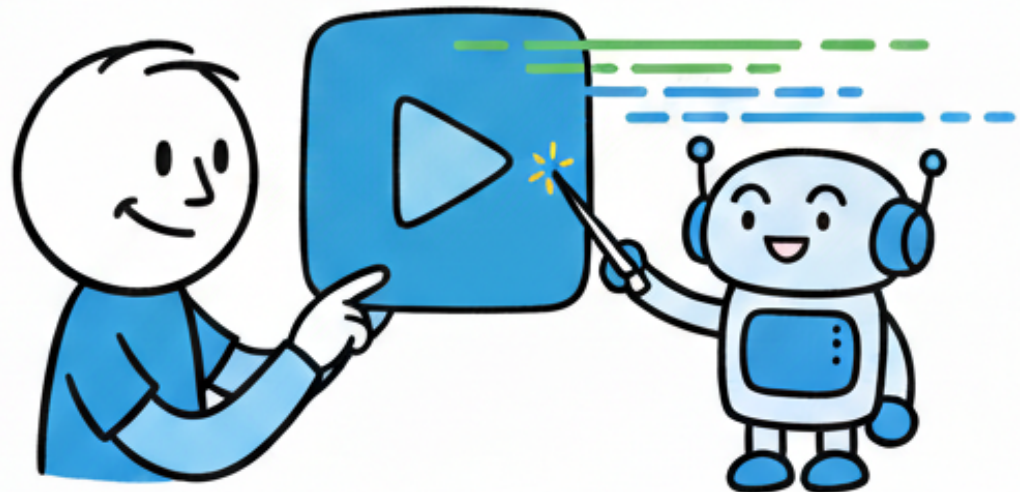
Day 18 Takeaway: AI is Changing **How We Build Software!**

Generative AI for code, powered by specialized LLMs, acts as an intelligent co-pilot, dramatically accelerating code generation, improving debugging, and simplifying code understanding for developers.

Next Up: Day 19:
The RAG Indexing



@learn.machinelearning



Next Up:

Day 19: The RAG Indexing

What repetitive coding task would you LOVE an AI to do for you? Let's hear it! 🙌

🔖 Follow @learn.machinelearning for the full series!