

**Scan to ask questions**



# **Contributing to Open Source with Cursor**

December 25, 2025

# Agenda



Workshop



Q/A



Hackathon



Networking



End



**Usman Siddique**

Software Engineer at **Motive**

# An Analogy: Getting Across Town 🏙️

Imagine you need to get across town. There are many ways to do it...



## Walking



Free



Takes longest



Most effort



## Biking



Some cost



Faster



Moderate effort



## Driving



Most expensive



Fastest



Least effort






You have the choice between **time**, **money**, **reliability**, and **effort**

# Similarly: Building Software






## No Tools

-  Free
-  Slowest
-  More errors






## IDE & Tooling

-  Some cost
-  Faster
-  Feedback



## AI Tooling

-  Costs more
-  Fastest
-  Practice needed



AI tools help you build **faster** with **practice**

Cursor

# AI Models = Super Intelligent APIs



## Stripe API

Handle payments

```
stripe.charges.create()
```



## Twilio API

Send messages

```
twilio.messages.create()
```



## AI Model API

Solve any task

```
openai.chat.completions()
```



The key difference: **No guaranteed identical results**







# AI Hallucinations


When AI **confidently generates incorrect information** that seems plausible

## Why does this happen?

- AI predicts next token based on patterns
- Like powerful autocomplete
- It doesn't say "I don't know" - generates what seems most likely

## In coding, this means...

-  Inventing APIs that don't exist
-  Wrong function signatures
-  Outdated syntax or methods
-  Plausible but buggy logic

 **The fix:** Develop a **verification mindset** – every suggestion is a starting point, not a final answer

# Understanding Tokens

## What is a Token?

A token can be a word or parts of a word:

`hello` → 1 token


`un` `believ` `able` → 3 tokens

 **Why it matters:** Tokens = pricing + speed

## Input vs Output Tokens



### Input Tokens

 Lower cost


Your prompt + context



### Output Tokens

 2-4x more!

Model's response

 **Why streaming?** AI generates tokens one at a time, predicting the next based on previous ones.

# Context Window



## Your Prompt

What you ask



## Chat History


Previous messages



## Code Context

Files & snippets

 **When context fills up:** AI starts "forgetting" earlier parts → answers get worse

 **Mental Model:** Watch the context indicator – **when it's filling up, start a new chat**

# Mental Model Summary 🧠



## You are in control

LLMs amplify your productivity



## Non-deterministic

Same prompt → different responses



## LLMs hallucinate

You must verify everything



## Watch context window

New chat at ~90% filled

# Contributing to Open Source with Cursor




Understanding any codebase in minutes


# What is Open Source? 📖


Software released under a license where the **copyright holder grants users the right** to **use**, **study**, **change**, and **distribute** the software and its source code to anyone for any purpose.


## 🏗 Major Projects


 Linux


 VS Code


 React


 Python


 Kubernetes

 Chromium


 TensorFlow

 Node.js

 Firefox


 Blender

 Git

 PostgreSQL

## 🚀 My favourites

 Dub.co

 Roadmap.sh

 freeCodeCamp

 Build Your Own X

# Why Contribute to Open Source? 🤔



**If you're doing it just to get a job... DON'T.**

Open source requires **patience** and **genuine interest**.



**Do it if you want to...**



Improve your **skills**



Build a better **mindset**



Build **relationships**



Have real **impact**



Make work **public**

# Where to Find Open Source Projects 🔍



## Google Summer of Code

Paid summer program for students to contribute to open source



## LFX Mentorship

Linux Foundation program with stipends for contributors



## MLH Fellowship

12-week internship alternative with real projects



## Microsoft FOSS Fund

Microsoft's open source contribution programs



## Outreachy

Paid internships for underrepresented groups in tech



## GitHub Explore

Find trending repos and good first issues directly

💡 Start small, build your portfolio, and grow your network!



# Steps to Your First Contribution

## 2. Good First Issues

- Look for `good first issue` labels
- Start small, build confidence
- Ask Cursor to explain the issue context



## 3. CONTRIBUTING.md

- Read the contributing guidelines
- Understand code style & conventions
- Check testing requirements

## 4. Writing Good Pull Requests



### Add "Why" Comments

Don't just explain what the code does – explain **why** it does it.

```
// We use debounce here to  
  
// prevent API spam on  
  
// rapid keystrokes
```



### Make PRs Small

- ✓ Reviewed more quickly
- ✓ Reviewed more thoroughly
- ✓ Less blocking on reviews
- ✓ Simpler to roll back



### Clear Description

- **What** changed?
- **Why** this approach?
- **How** to test it?
- Link to the **issue**



A good PR tells a **story** – reviewers should understand your thinking without asking questions

# Common Mistakes to Avoid

## **Blindly Trusting AI Output**

Always review and understand the code AI generates.  
You're responsible for your commits!

## **Large First PRs**

Start small! A 10-line fix is better than a 500-line refactor  
for your first contribution.

## **Ignoring Project Guidelines**

Each project has its own conventions. Read  
CONTRIBUTING.md and follow the existing patterns.

## **Not Understanding Your Change**

If you can't explain what your code does, don't submit it.  
Take ownership of every line.

# Bonus: Cursor Cloud Agents + Slack



**Work on tasks directly from Slack!**

Example message:

`@cursor fix the login bug in auth.ts and open a PR`

With Cursor's Slack integration, Cloud Agents can work on your tasks by simply mentioning @cursor with a prompt.

Thank You! 🙏

Let's Connect 🤝