# Semgrep

Adaptive Noise Cancelling Meets Code Scanning



Solutions Engineer, Strategic Accounts

#### **David Whitlow**

Recovering:

IT Security and Systems Admin

Daylight:

Improving AppSec with Semgrep

Moonlight:

2x Disney Princesses

7x League Kickball Champion



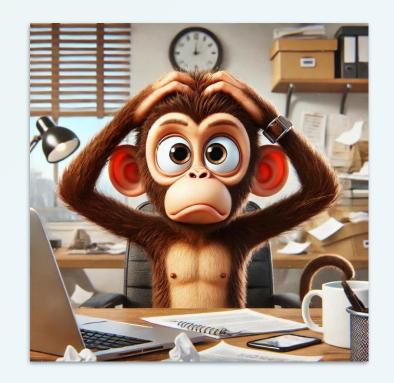
### **Semgrep AppSec Platform**





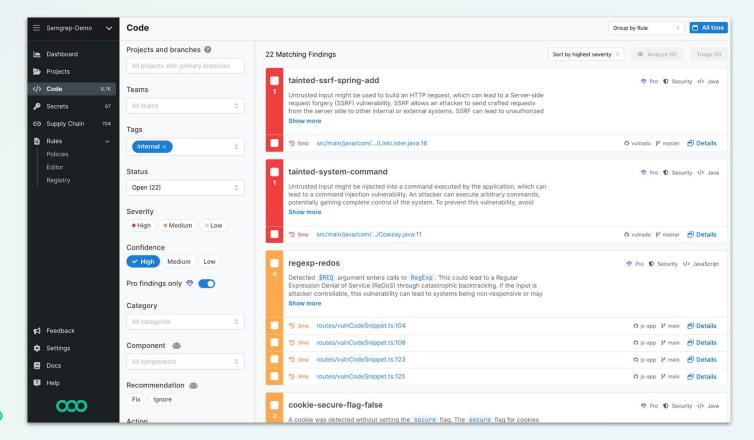
### **Problems with Code Scanning**

- Understanding code is hard
- Product bugs have direct customer impact
- Bad tools and poor implementations are both mind-numbing and soul-crushing
- Developers already have a day job





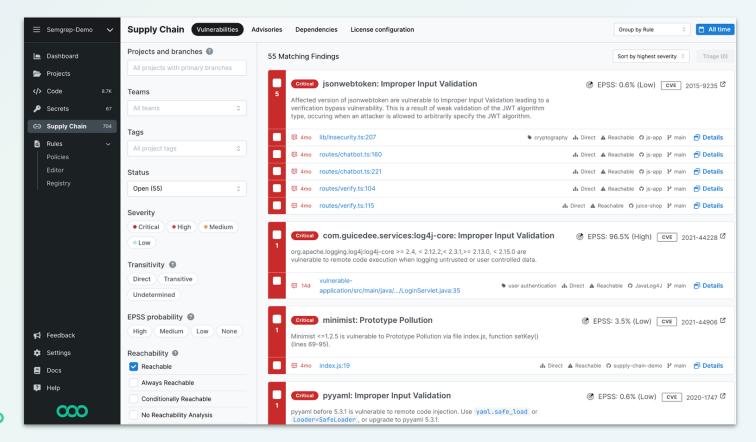
### **Semgrep Priority Findings**







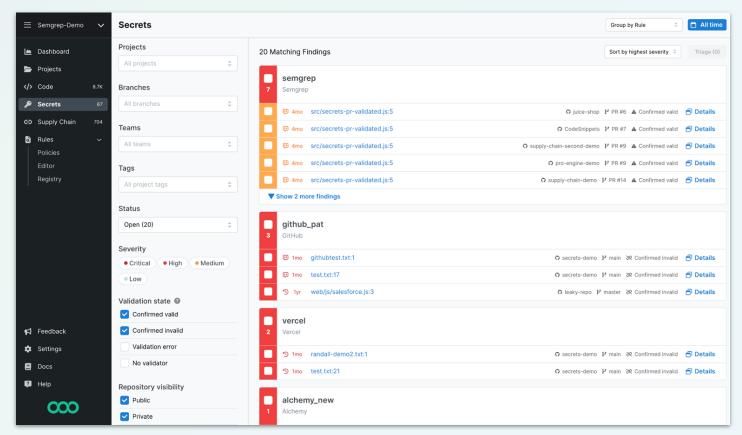
### **Semgrep Priority Findings**







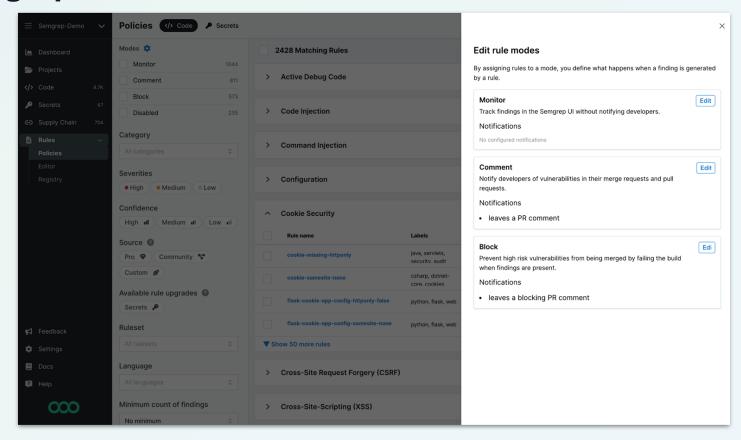
### **Semgrep Priority Findings**







#### **Semgrep Notification Control**

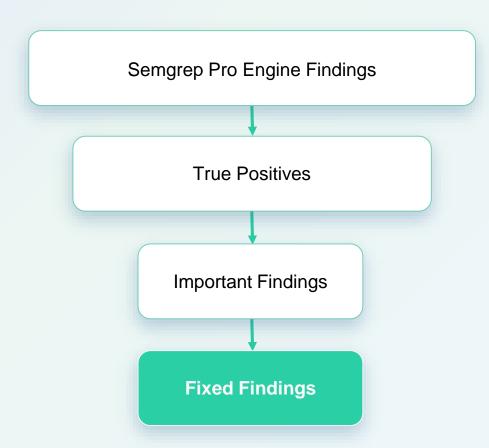






But what about the AI?

#### **Focus on Fixes with Assistant**



**Pro Engine** -> Semgrep Pro Engine delivers best-inbreed, deterministic findings with more coverage than any other product.

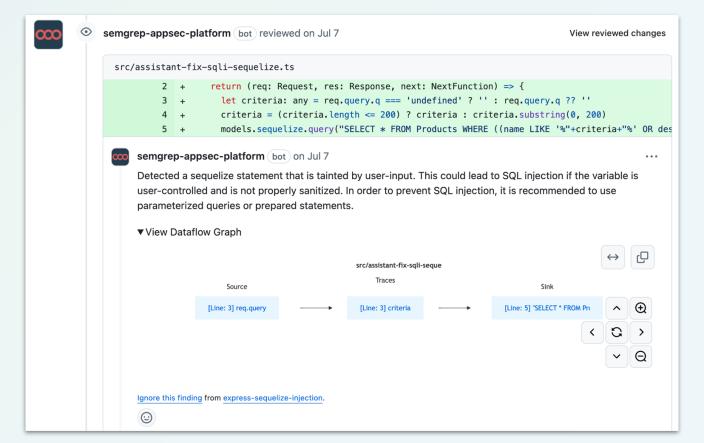
**Al Autotriage** -> Assistant can tell you which findings are FPs. Out of the box - Assistant reduces noise by as much as 30%.

**Al Contextualization** -> Of those TPs, it turns out lots are still unimportant (e.g. in tests, dev scripts, or mitigated by another control).

**Al Autofix** -> All important findings receive step by step remediation guidance with suggested code fixes. Fixes are automatically rescanned for assurance.



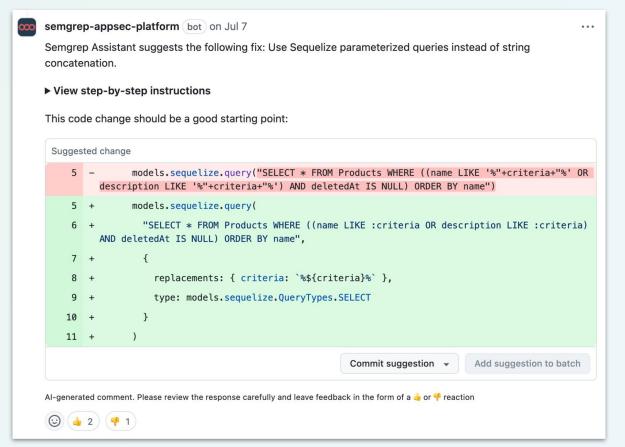
#### **Meet Developers Where They Are**





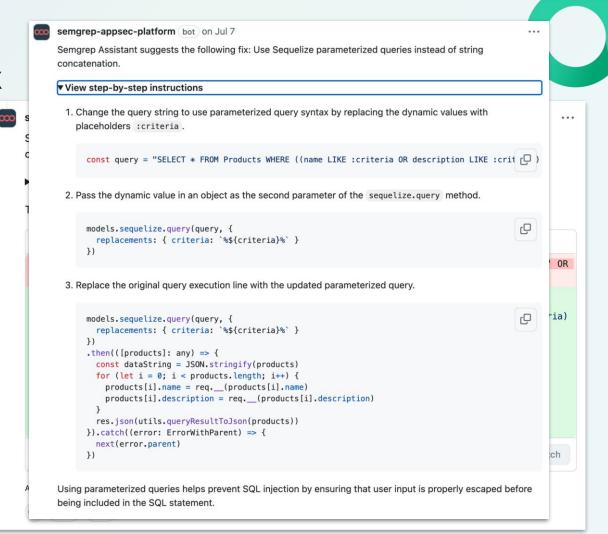


#### **Al Autofix**





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### **Autotriage**

Some things are safe to ignore





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       const errorResponse = util.validateProxyRequest(url, res);
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semgrep-appsec-platform (bot) 5 minutes ago

Untrusted input might be used to build an HTTP request, which can lead to a Server-side request forgery (SSRF) vulnerability. SSRF allows an attacker to send crafted requests from the server side to other internal or external systems. SSRF can lead to unauthorized access to sensitive data and, in some cases, allow the attacker to control applications or systems that trust the vulnerable service. To prevent this vulnerability, avoid allowing user input to craft the base request. Instead, treat it as part of the path or query parameter and encode it appropriately. When user input is necessary to prepare the HTTP request, perform strict input validation. Additionally, whenever possible, use allowlists to only interact with expected, trusted domains.

▶ View Dataflow Graph

To ignore this, reply with:

- /fp <comment> for false positive
- /ar <comment> for acceptable risk
- · /other <comment> for all other reasons

Alternatively, triage in Semgrep AppSec Platform to ignore the finding created by ssrf-deepsemgrep.

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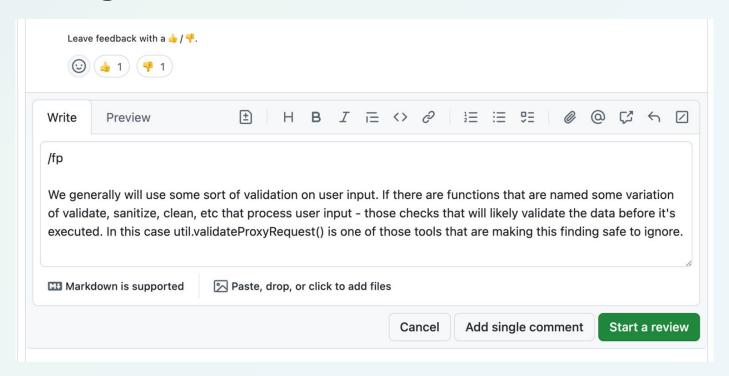
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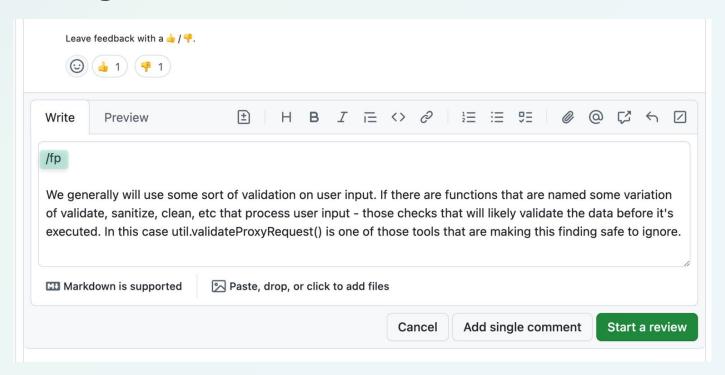
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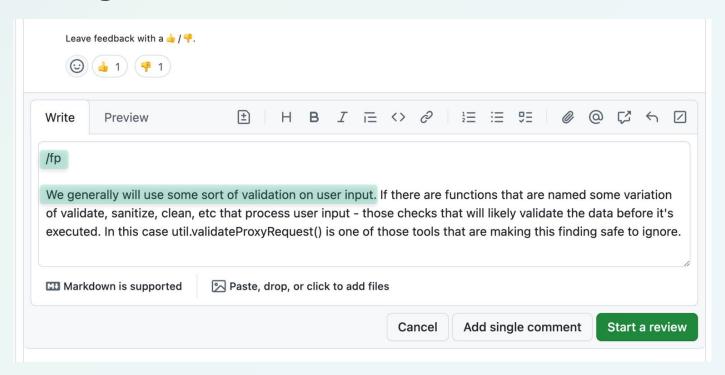






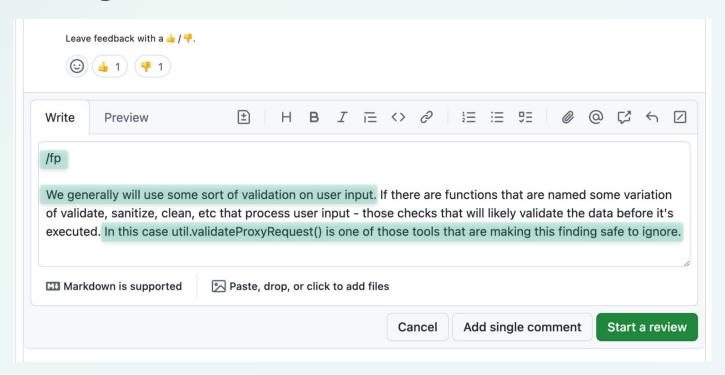






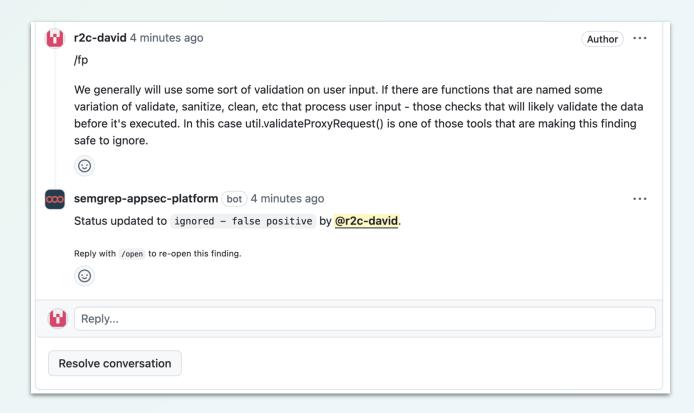




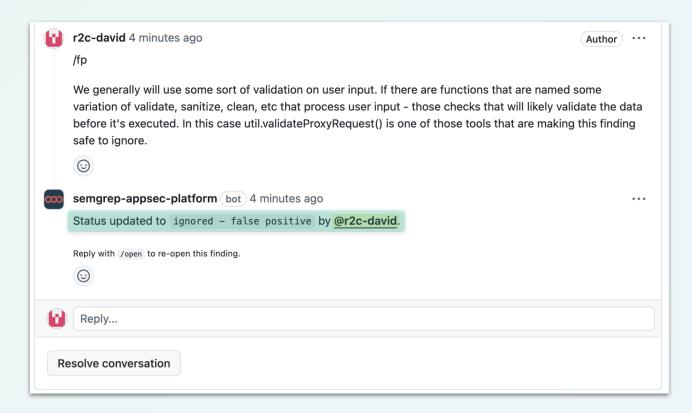




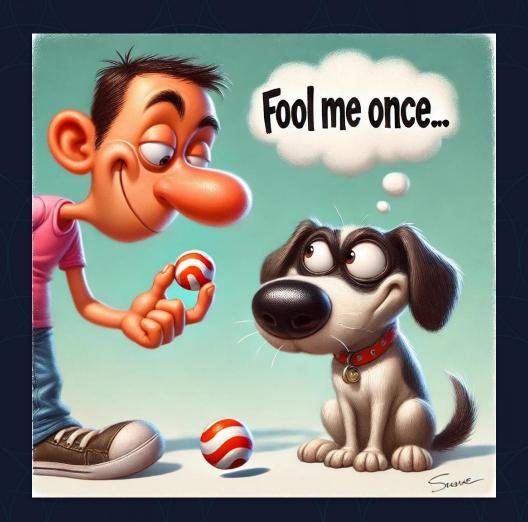














```
const errorResponse = util.validateProxyRequest(url, res);
if (errorResponse) {
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```

```
const errorResponse = utility.checkSafe(url, res);
if (errorResponse) {
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semgrep-appsec-platform (bot) 7 minutes ago

Semgrep Assistant thinks this might be safe to ignore. The code uses a function named utility.checksafe() to validate the url before making the request, indicating that there is likely a validation mechanism in place to ensure the url is safe. this makes the finding less of a security concern.

Al-generated comment; review carefully.

Leave a 👍 reaction to ignore the finding. Reacting with 🁍 or 👎 also provides feedback to improve Assistant's future comments.









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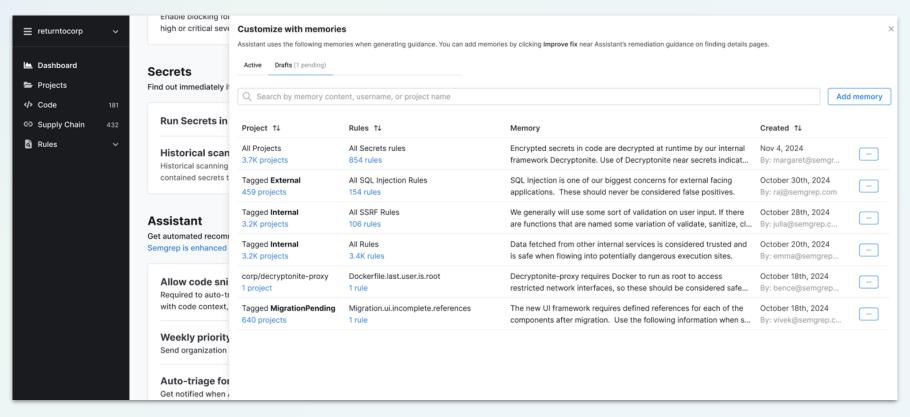


#### **Assistant Memories**

Never forget a great tip

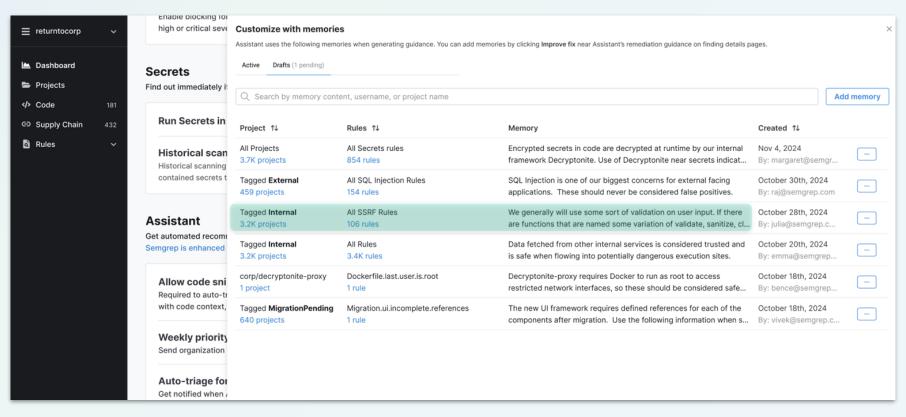






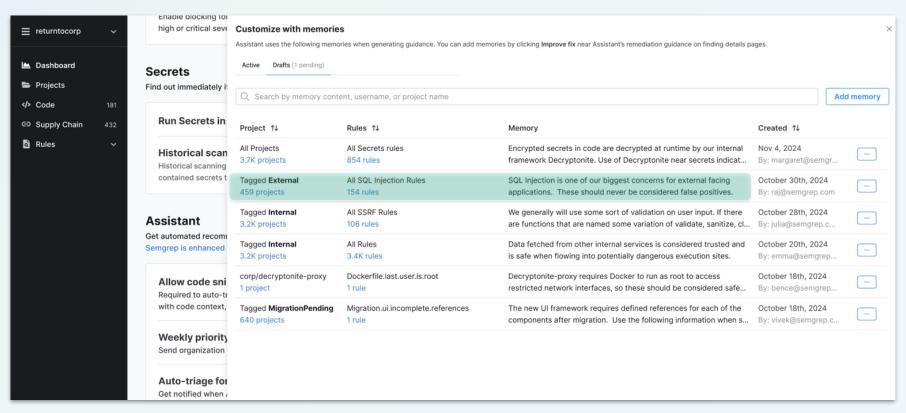






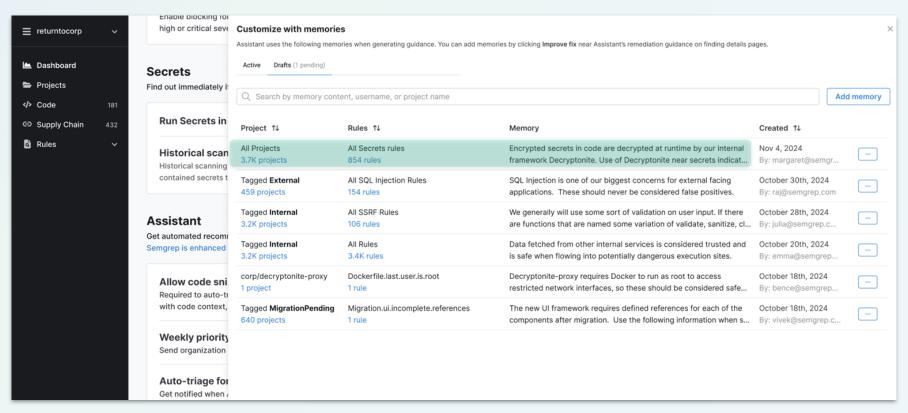






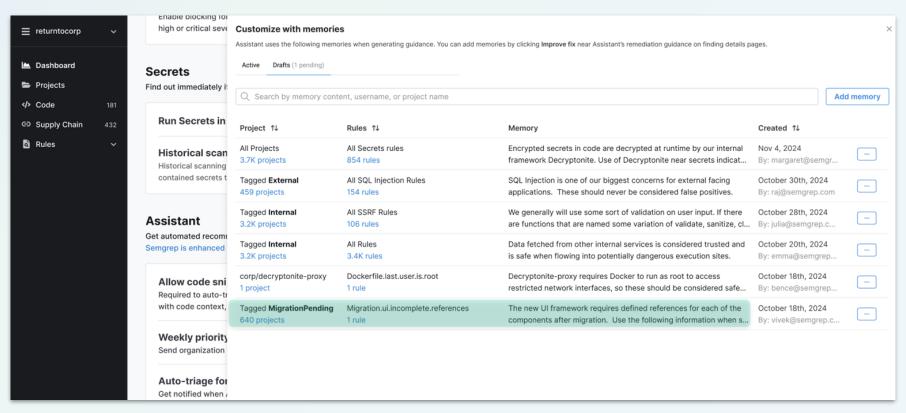














## **Semgrep Assistant Features**

Al-powered workflows that cut through the noise and fix the most critical vulnerabilities in your backlog.

Noise filtering saves dev and AppSec time by flagging findings that likely not exploitable

Remediation guidance tells your developers how to fix vulnerabilities in PR comments

Memories tailor triage and remediation to your organization's standards and secure defaults

\*Rule generation writes high-signal, low-FP custom rules using natural language instructions

**†** Priority Inbox surfaces critical findings on your most sensitive repositories

Supported in 30+ languages



Thank you!

**Questions?**