

# Your Time Is **HERE**

The AppSec Career Nobody Trained For

Bruce Fram | OWASP Bay Area, April 16, 2026

# Hi Mom & Dad – I am an **AppSec Engineer!**

SUNDAY, APRIL 12, 2026

**The New York Times**

***The Big Bang: A.I. Has  
Created a Code Overload***

Companies are scrambling to deal with the glut.

"Companies are struggling to hire enough people to monitor the A.I. code for risks, a role called **application security engineer**.

"There are not enough **application security engineers** on the planet to satisfy what just American companies need"

# The CEO/Board **REALLY** Cares...

April 7, 2026 — Treasury Secretary and Fed Chair call an urgent meeting



THE HILL

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Reporting: Pete Hegseth US-Iran ceasefire talks Eric Swalwell Artemis II crew Sponsored: Content from Google Cloud

TECHNOLOGY

## Bessent summons bank executives over Anthropic cyber risk

yahoo/finance

## Anthropic's Mythos sparks Washington's big bank anxiety

- Scott Bessent** — Treasury Secretary
- Jerome Powell** — Federal Reserve Chair
- Brian Moynihan** — CEO, Bank of America
- Jane Fraser** — CEO, Citigroup
- David Solomon** — CEO, Goldman Sachs
- Ted Pick** — CEO, Morgan Stanley
- Charlie Scharf** — CEO, Wells Fargo
- Jamie Dimon** — CEO, JPMorgan Chase

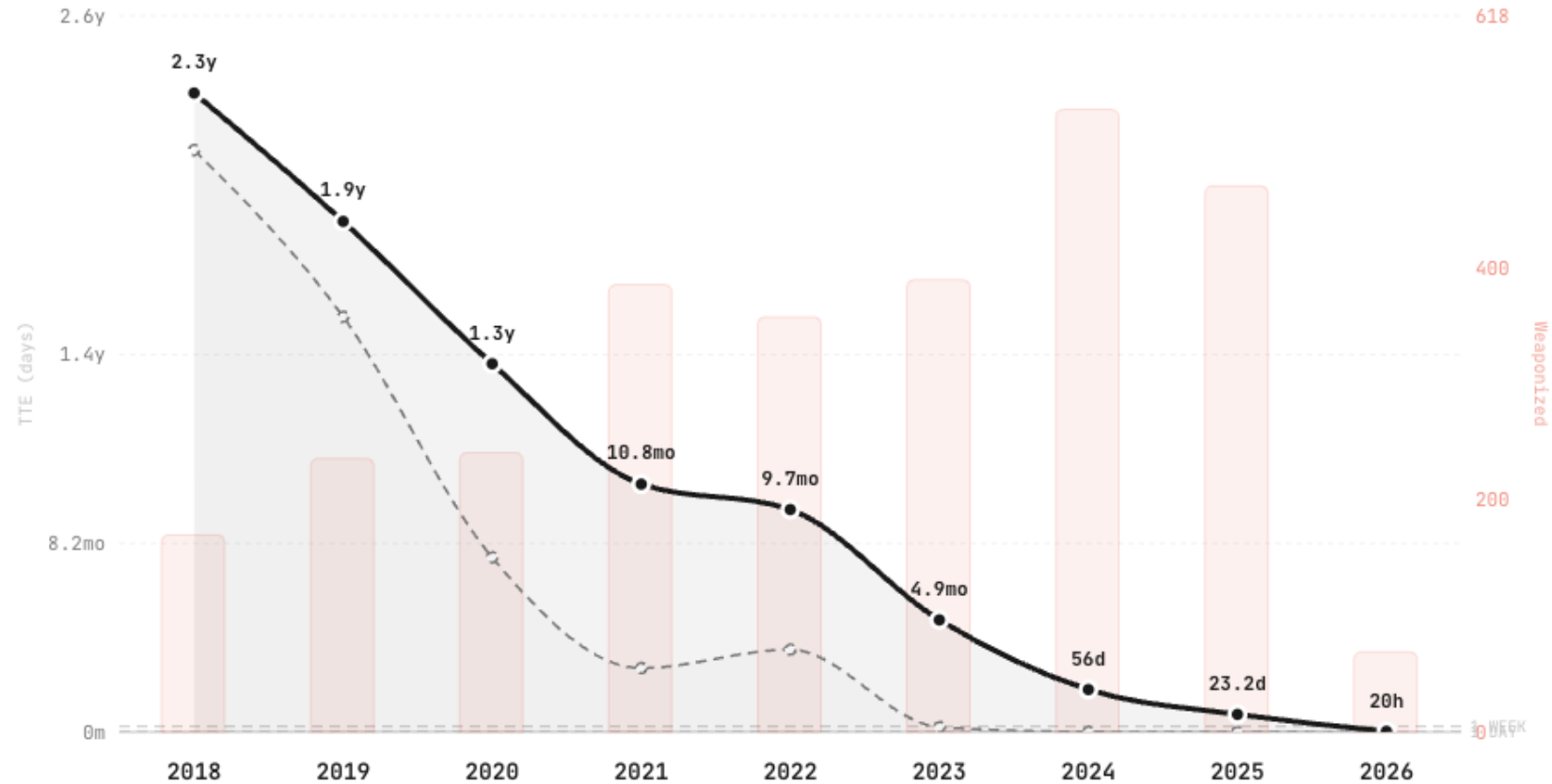


# ... Because they **Understand** This ...

## From Vulnerability to Exploitation

TTE (Time-to-Exploit) measures the gap between CVE disclosure and confirmed exploitation

— Mean TTE (10% trimmed, days)    - - - Median TTE (days)    ■ Weaponized Exploits (count)



# ... Can **Collapse** the Economy



*Software runs everything. Software has vulnerabilities. Vulnerabilities are being exploited faster than ever. We are not fixing them fast enough.*

**\$10.5T**

Annual global  
cybercrime cost

**20h**

Time to exploit  
(was 2.3 years)

**252d**

Average fix time  
(up from 171)

**That's why Bessent and Powell called the meeting.**

# Great for **US**. Might Even Be Fun!

- **The code explosion** created strong demand for what we do
- **The answers are in the code**
  - that's where vulnerabilities live and where fixes happen
- **That's our domain** — and now we have tools that let us work at machine speed



# How do we deal with this and win?

## 1 This is not the first time there has been a technology transformation

The Power Parallel – Engines → AI

## 2 The new Dev / Sec / Ops

Who owns what – and who takes action

## 3 Automation and Adoption

Validation, speed, and the 8.2-minute fix

## 4 The GRASP Framework

Evaluating AI technology – five pillars

## 5 Getting started – OASIS

Open-source security you can join today

# Do you feel **confused**? Unsure? Behind?



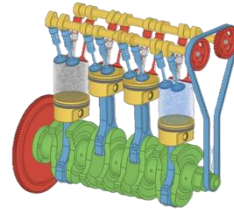
New models every week. New tools every day. Your vendors are pivoting. Your developers are using tools you haven't vetted. The landscape is moving faster than anyone can keep up with.

**You're not behind. Let's figure this out together. Scan the QR →**



# Good News – We have Seen This Before

## The Internal Combustion Engine (1876 → 1908 Model T)



Automobiles



Agriculture



Logistics



Global Trade



Transport



Manufacturing



Personal Mobility



Energy



Commerce



Infrastructure

# Same Story – Different **Technology** – A Little Faster Artificial Intelligence (2023 → ?)



Autonomous Vehicles



Drug Discovery



Supply Chain



Customer Service



Scientific Research



Robotics



Software Engineering



Energy Grids



Commerce



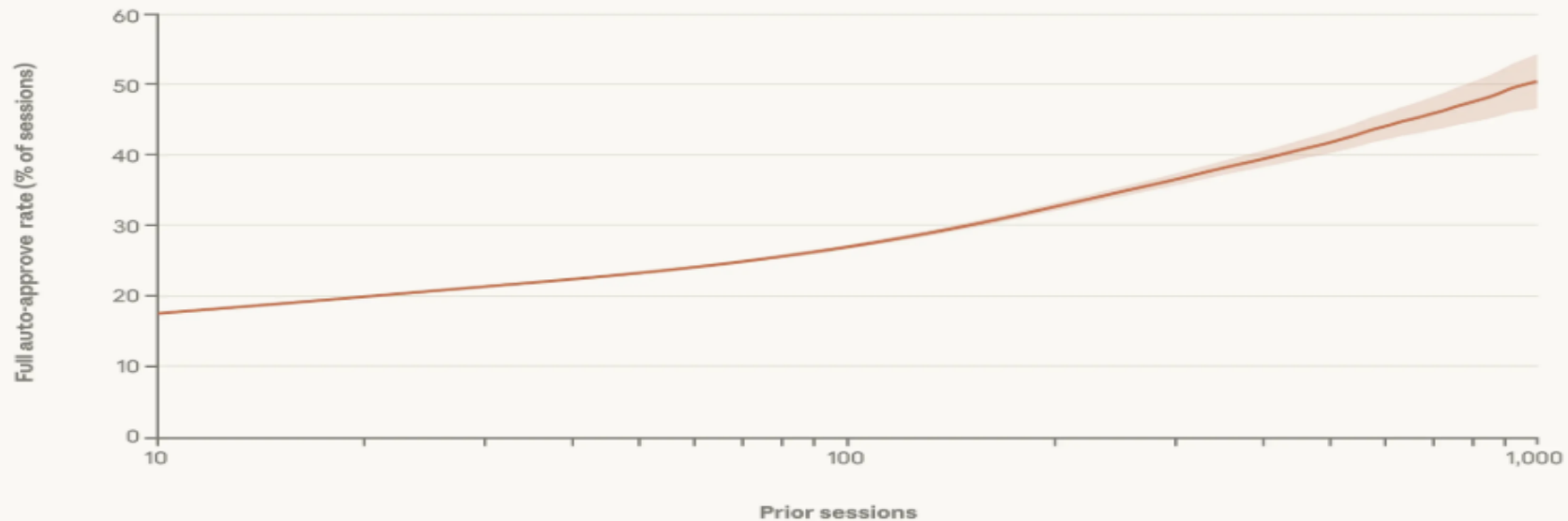
Education

# Devs don't code anymore – They ask!



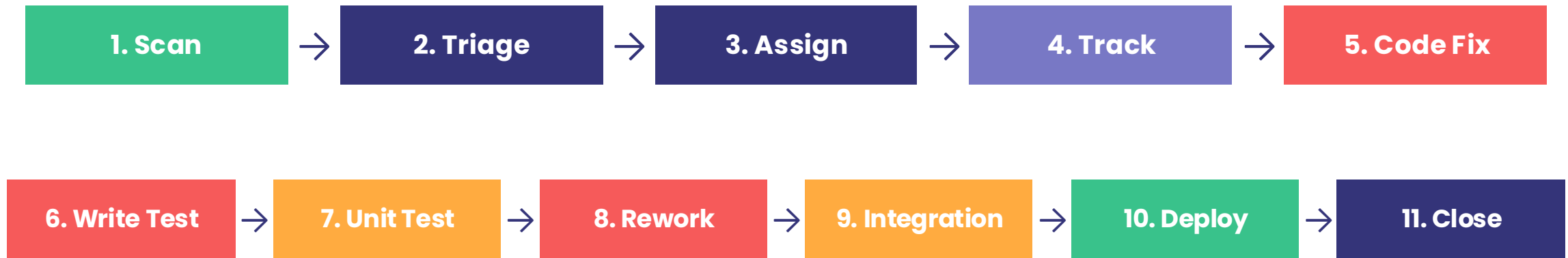
# The More they use AI, the more they automate

## Claude Code auto-approve rate by experience



**Figure 2.** Auto-approve rate by account tenure. Experienced users increasingly let Claude run without any manual approval. Data reflects all interactive Claude Code usage for users who signed up after September 19, 2025. Line and CI bounds are LOWESS-smoothed (0.15 bandwidth). The x-axis is a log scale.

# AppSec is manual and slow 11 steps – and none of them are free

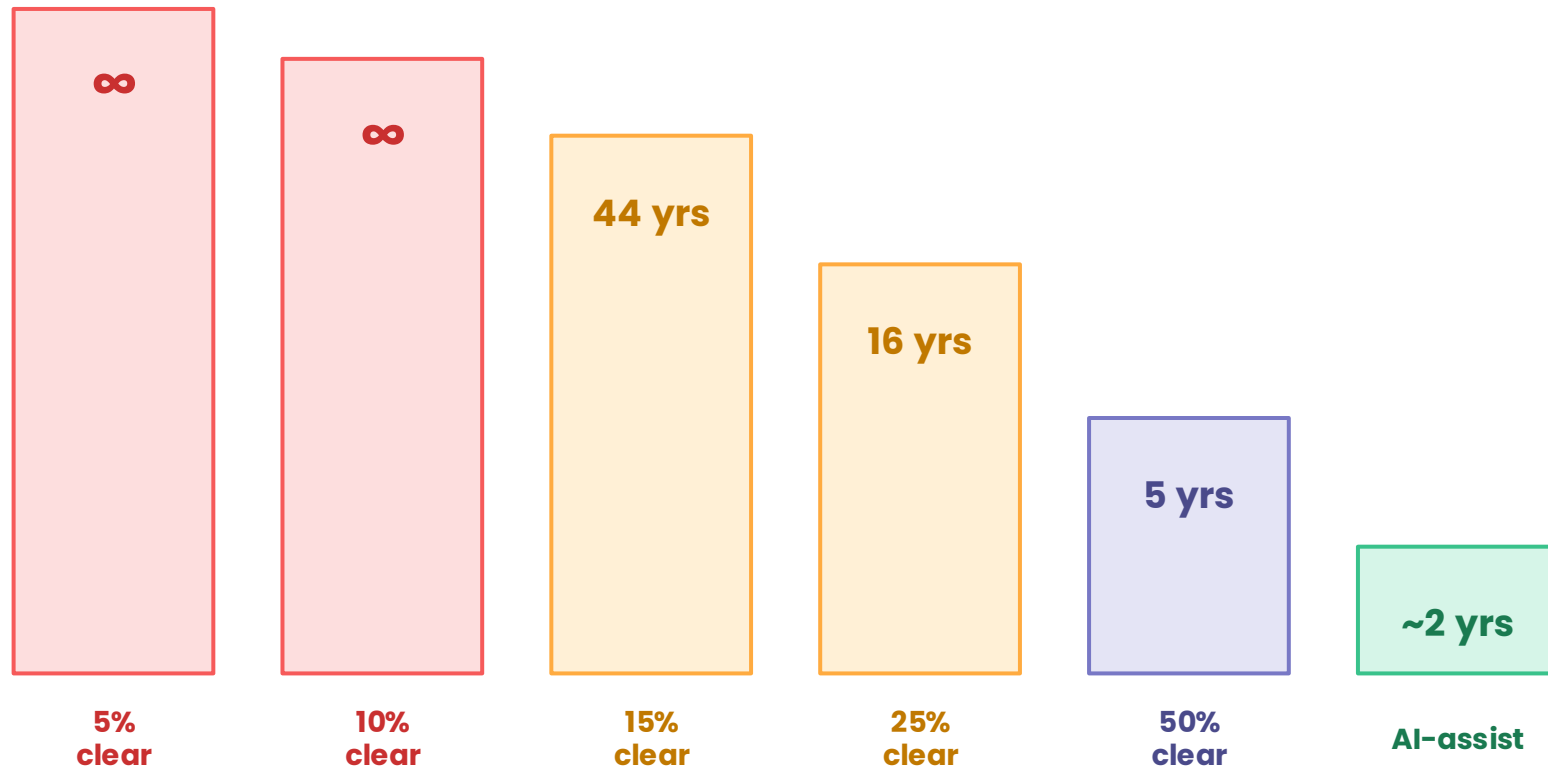


Each step has a person. Each person has a delay. Each delay has a **cost**.

**Total AppSec Spend ÷ Vulns Actually Fixed = Your Real Cost Per Fix**

# We mathematically catch up ... **never**

Vulnerability Backlog Based on Clear Rate



**252**

days avg to fix (↑ from 171)

**180%**

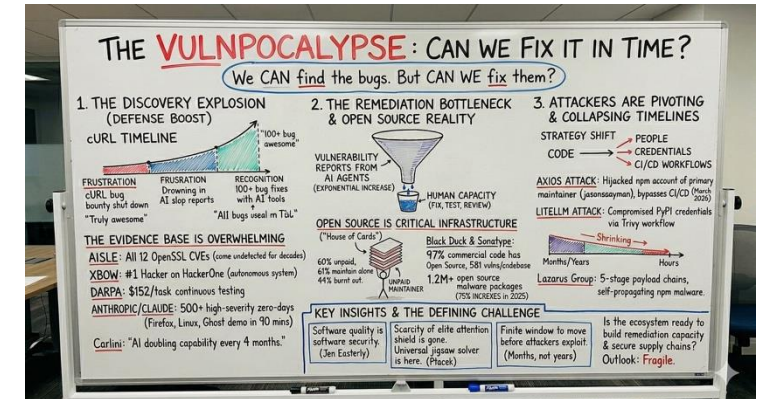
↑ exploit attacks (DBIR)

**5%**

of orgs fix even 15%/year

# The **Vulnpocalypse** is coming – Finding is Easy – Will be free

*"The question is no longer whether AI can find the bugs, it can. The question is whether we can fix them before attackers exploit them, and right now, the evidence suggests we're losing that race."*



**Chris Hughes**

CEO & Co-Founder, Aquia · Founder, Resilient Cyber  
20+ years cybersecurity · Author, "Effective Vulnerability Management" · Former U.S. Air Force / FedRAMP

April 7, 2026

<https://www.resilientcyber.io/p/vulnpocalypse-ai-open-source-and>

# The industry finds problems. Nobody fixes them.

## YESTERDAY

## TODAY

\$5,000 – 20,000+ per fix

→ 1/100 the cost

200+ days to remediate

→ Minutes to remediate

40%+ false positive rate

→ 90++% accurate triage and remediation

AppSec = "Department of No"

→ AppSec = Acceleration Team

# The new model – you will take direct action

## What's Blocking You Today?

### Dev owns the code (but not for much longer)

With AI-generated code, there is less code ownership.

### Business does not want to invest in security

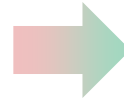
Every dollar invested costs \$ in labor.

### Tools undermine you

40% false positives. Negative ROI for years.

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***You have influence, not agency.  
You advise on risk, but can't take direct action.***



## From Advising to Agency

### Dev = Reward

Features, functionality – what gets shipped.

### Security = Risk

Assess, manage, remediate – own the outcome.

### Ops = Scale

Reliability, performance – keep it running.

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***Equal partners at the table.  
Conflict → Collaboration.***

# Someone Has to Own What Goes Out the Door



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## AUTOMATED ACTION — YOU CONTROL THE RULES

### Full Auto

Decision is made automatically. Low risk, high confidence.

### Exception Auto

Most decisions auto — exceptions proofed by people.

### Manual Assist

AI generates — all approved by people.

### Manual

Generated and approved by people. Highest risk, lowest volume.

# Pre-Mythos – Is this fast enough? Manual Assist

**8.2 Minutes** per vuln

Triage → Validate → Comment → Merge

## The Setup

- Never seen the code before
- Never seen our product
- Used GitHub only

## What They Did

- Triaged the vulns
- Validated the fixes
- Wrote comments in GitHub
- Merged the code

# Your Job

The real value isn't the frontier model itself, but **the system you build around it**: orchestration, validation loops, integration with traditional tools (SAST, DAST, SCA) and deep security expertise.



## Build the System

Orchestration, validation, integration — the car around the engine



## Set the Policy

What's auto-fixed, what needs review, what's blocked — you decide



## QA the Output

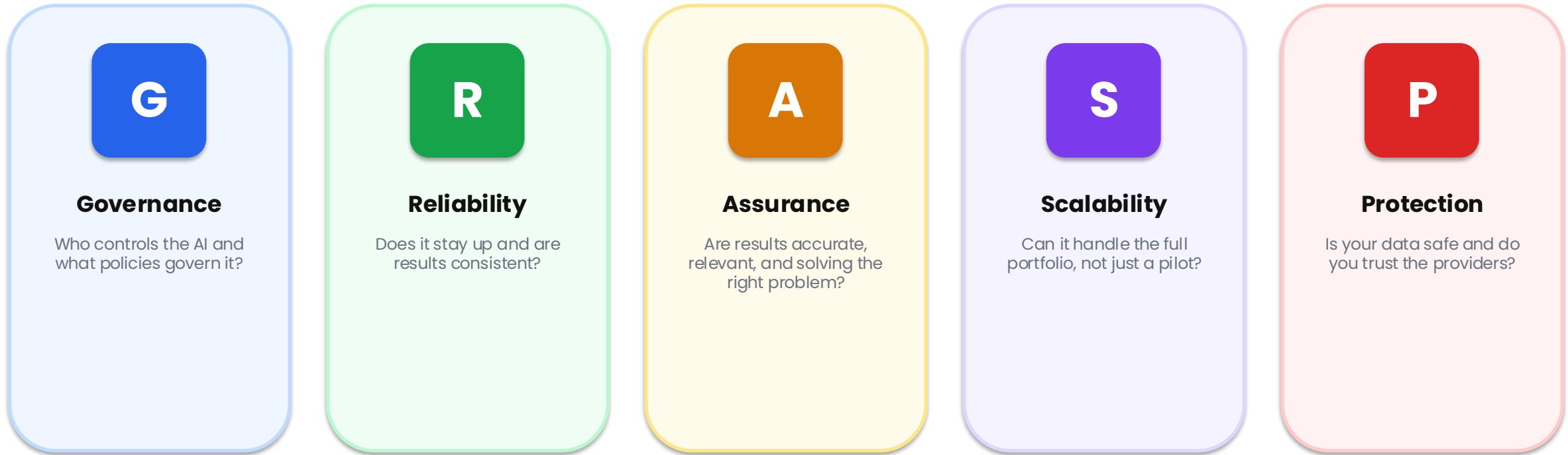
Validate AI decisions, catch drift, ensure fixes are correct and relevant



## Measure the Outcome

Backlog shrinking?  
Developers adopting?  
Posture improving?  
Prove it

# How – The **GRASP** Framework



*Draft for Feedback – OWASP Bay Area, April 16, 2026*

# GRASP Category Definition

Pillar	The Question	Without It
<b>G</b> overnance	Who controls it, and what are the rules?	"Shadow AI" — people using AI tools with no oversight, no policies, no one accountable.
<b>R</b> eliability	Does the system stay up, and are results consistent?	"Works on my machine" — crashes when a service is down, runs out of tokens, model update silently degrades quality.
<b>A</b> ssurance	Are results accurate, relevant, and solving the right problem?	"Automated confidence, not competence" — 10,000 outputs, nobody checked if they're correct or useful.
<b>S</b> calability	Can it handle the full workload, not just a pilot?	"Artisanal AI" — works for one team, one use case. The other 500 problems are still done by hand.
<b>P</b> rotection	Is your data safe — and do you trust the providers?	"The locksmith leaves the door open" — your data trains someone else's model, no policy governing any of it.

# GRASP Evaluation Matrix

	① None	② Basic	③ Working	④ Strong	⑤ Leading
<b>Governance</b>	Blind No visibility. Every session starts from scratch	Aware Someone knows AI is being used; ad hoc oversight	Visible Dashboards, approval gates, cost visible per team	Policy-Driven Automated rules; budget controls and cost alerts	Autonomous Full policy engine, configurable autonomy, cost governance
<b>Reliability</b>	Fragile No error handling; results vary wildly	Reactive Basic error handling; manual recovery	Robust Fallbacks, retries, consistency checks	Consistent Self-heals; drift tracked; regressions caught	Resilient Full redundancy; drift detection + automated rollback
<b>Assurance</b>	Unproven No validation of outputs	Spot-Checked Manual review of some outputs	Fit for Purpose Systematic validation; solving the right problem	Outcome-Driven Evidence tied to business outcomes; drift corrected	Accountable Continuous measurement; efficacy vs objectives; SLAs
<b>Scalability</b>	Manual One use case, by hand	Team Works for one team	Multi-Use Multiple teams; some automation	Enterprise Org-wide; cost-effective at scale	Industrial Full workload; cost-per-outcome optimized
<b>Protection</b>	Exposed Unvetted providers; data may train models	Basic Trusted models; opt-outs; basic agreements	Policy-Based Providers vetted; data policy enforced	Defended Data scanned before leaving; prevention rules	Self-Hosted All AI internal; no data leaves perimeter

# How it fits in your Enterprise

The LLM is the engine. Everything built around it determines whether it's enterprise-ready.

## Enterprise Context

Organizational Knowledge · Policies & Compliance · Business Rules  
**Your Organization**

G

## Domain Application

Workflows · Validation · Domain-Specific Logic · UI & Integrations  
**Application Security, Legal, Customer Service**

R

## Runtime / Agent Layer

Agent Loops · MCP & Tools · Skills · Context & Memory  
**Claude Code, Cursor, LangChain**

A

## LLM Core

Language & Reasoning · World Knowledge · Base API · Context Window  
**Anthropic, OpenAI, Google**

S

P

# Applied: OpenClaw

Pillar	Score	Level	Evidence	What's Missing
<b>Governance</b>	1	Blind	No policy on merges. No visibility into AI-generated code. No approval gates.	Dashboard, merge policies, configurable review requirements
<b>Reliability</b>	2	Reactive	CI/CD runs, builds pass. No security benchmarks – same vuln patterns reappear.	Result consistency, pattern detection, quality trending
<b>Assurance</b>	1	Unproven	No audit trail. No FP tracking. No validation that findings lead to fixes.	Any evidence that security posture is good or improving
<b>Scalability</b>	2	Team	Small core team handles security manually. Growth outpaced review capacity.	Automated scanning, sustainable reviewer ratio, scaled practices
<b>Protection</b>	1	Exposed	Severe vulns in production. No AI contribution vetting. No supply chain threat model.	Data policy, provider vetting, downstream risk awareness
<b>Total</b>	<b>7</b>		out of 25 – needs 21+ for its scale	(750K weekly consumers)

## Verdict: Critical Risk – Scale/Score Mismatch

Scores 7/25 but operates at industrial scale. The gap between where it is (7) and where it needs to be (21+) is the largest possible mismatch.

# Skills You Need for the **New World**

★ **Curiosity – the most important skill. New tools ship every day. Stay on top of what's real, what's noise, and what's coming next.**

## TRADITIONAL APPSEC SKILLS (STILL NEEDED)

- Vulnerability analysis – vuln classes, severity, exploitability
- Code review – reading code, spotting insecure patterns
- Scanner operation – SAST, DAST, SCA tool usage
- Threat modeling – identifying attack surfaces and risk
- Compliance knowledge – PCI, SOC 2, regulatory frameworks

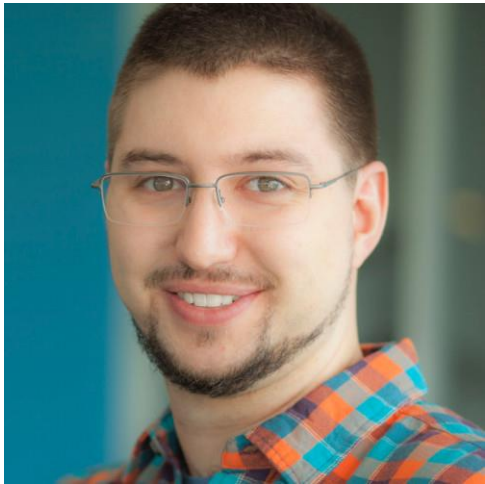
## NEW SKILLS REQUIRED

- AI/ML literacy – how models work and how to leverage them
- Policy design – automation rules at scale
- Building – adding context to AI and building own tools
- Data and metrics – measuring outcomes, dashboards
- Solution & tech evaluation – separating hype from substance
- AI output QA – validating AI fixes, monitoring drift



# Get Started – Project **OASIS**





## Open Automated Security Initiative for Software



**Chris Holt**

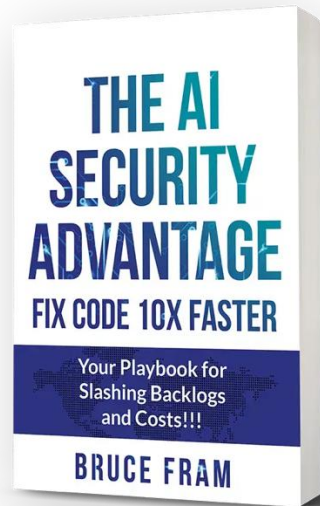
**Intigriti**

15+ years in AppSec and Bug Bounty  
Previously ran Intel's Bug Bounty  
program

-  **Review AI-generated security fixes** for real open-source projects
-  **15 min/week** – low commitment, real impact
-  **Your name on vetted PRs** submitted to project maintainers
-  **Just a GitHub account** – scan the QR code to start this week

**Build your portfolio · Get published credit · Ship safer code**

# The Playbook You Need



**Applies post-Mythos. Here's what's inside:**

- **Quantify the economics** – build the business case your CISO needs
- **Fix the manual process** – what's broken and how to automate each step
- **Manage up with data** – real enterprise cost numbers to justify investment
- **Get started now** – practical advice you can apply Monday morning

[See QR link or grab it before you leave](#)

# Friday Morning – Your Three Moves

## Move 1 – Sign up for OASIS

Pick a project. Review one AI-generated fix. Your name on the PR.

## Move 2 – Try the GRASP skill on a project

Run it against any AI tool your team uses. Scored assessment – what's strong, what's risky.

## Move 3 – Download and read the book

The economics, the broken process, and how to manage up – all in one playbook.



[Scan to start →](#)

**All free. All at the QR link. Start before the weekend.**

# One Scan — Everything You Need

## GRASP Framework

Five pillars for evaluating any AI system: **Governance**, **Reliability**, **Assurance**, **Scalability**, **Protection**

## Slides & Deck

Full slide deck

## AI Skills for GRASP

An AI Skill to evaluate projects/Repos in GRASP



[appsec.ai/owasp-april-2026](https://appsec.ai/owasp-april-2026)

 **AppSecAI** [appsec.ai](https://appsec.ai)

 **Bruce Fram** [linkedin.com/in/brucefram](https://linkedin.com/in/brucefram)

Backup

# Pre-Mythos: Automated Validation is Everything

*"LLMs can do anything - unreliably"*

## Security validation

Re-scan confirms the fix resolves the vuln

## Functional equivalence

Fix doesn't break existing behavior

## Quality/style alignment

Matches your coding standards

## And more

Compiles, lints, passes CI gates

## AppSec answers:

"Does this remediate the vulnerability safely?"

## Engineering answers:

"Does this preserve expected behavior?"

**Each team answers questions they can answer.**