RSAConference2020

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HUMAN ELEMENT

SESSION ID: **DSO-T11**

DevSecOps State of the Union

Clint Gibler

Research Director
NCC Group
@clintgibler

#RSAC

Distill tips / insights from talks, blog posts, conversations

About Me

- Technical Director and Research Director at NCC Group
- PhD in Computer Science from UC Davis

Things I ♡

- DevSecOps, security automation, scaling security
- Automated bug finding (static and dynamic analysis, fuzzing, ...)

Before We Start - My Assumptions

- You’ve found SAST/DAST not that useful (operational time required & cost)
- You’re willing to invest time now to reap big security wins later
- Your security team has at least a few people, but not dozens

Agenda

- Big Picture
  - Mindsets and Principles
  - Choosing How to Invest Your Time
- Scaling Your Company's Security
  - The Fundamentals
  - Scaling Your Efforts
  - Security Endgame
- Action Plan

Mindsets & Principles

- **Automate as much as possible**
  - Security teams are always time and person-limited, you need to scale
- **Guardrails not Gatekeepers - minimize “no’s”**
  - Netflix’s *Paved Road*. Scaling Appsec at Netflix by @astha_singhal
- **Prefer high-signal, low-noise tools and alerting**
  - It may be better to miss some issues than drown in triaging alerts that don’t matter

Mindsets & Principles

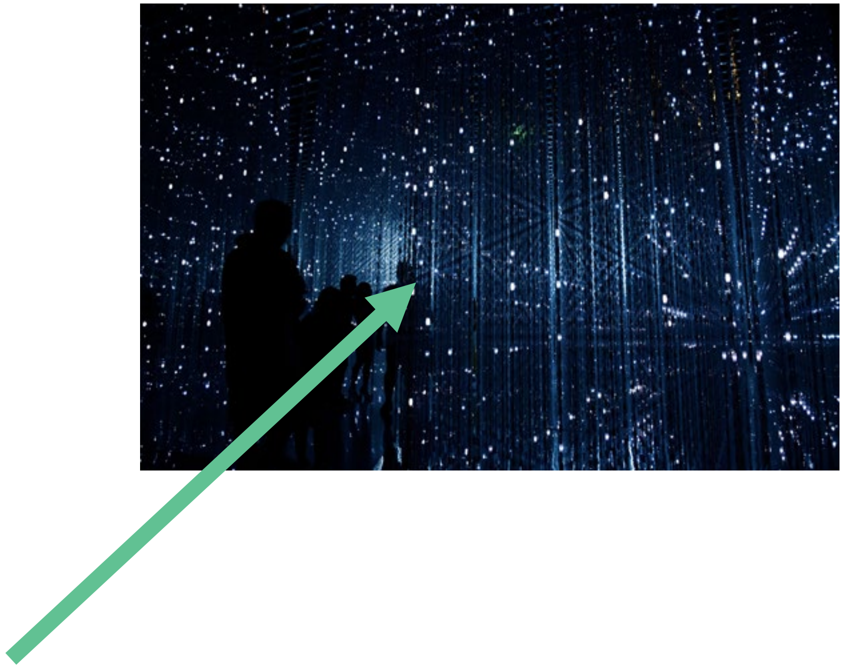
- **Developers are your customers - UI and UX is important**
  - How can we fit into dev's existing tools and workflows?
  - Can we make the secure way easier, faster, or otherwise better than the current way?
  - Build in useful features (telemetry, logging, etc.)
- **Self-service security**
  - Provide tools and services devs can use without security team interaction
- See also: Tech Beacon blog post on mindsets / principles

Choosing How to Invest Your Time

Now

Medium Term

Long Term

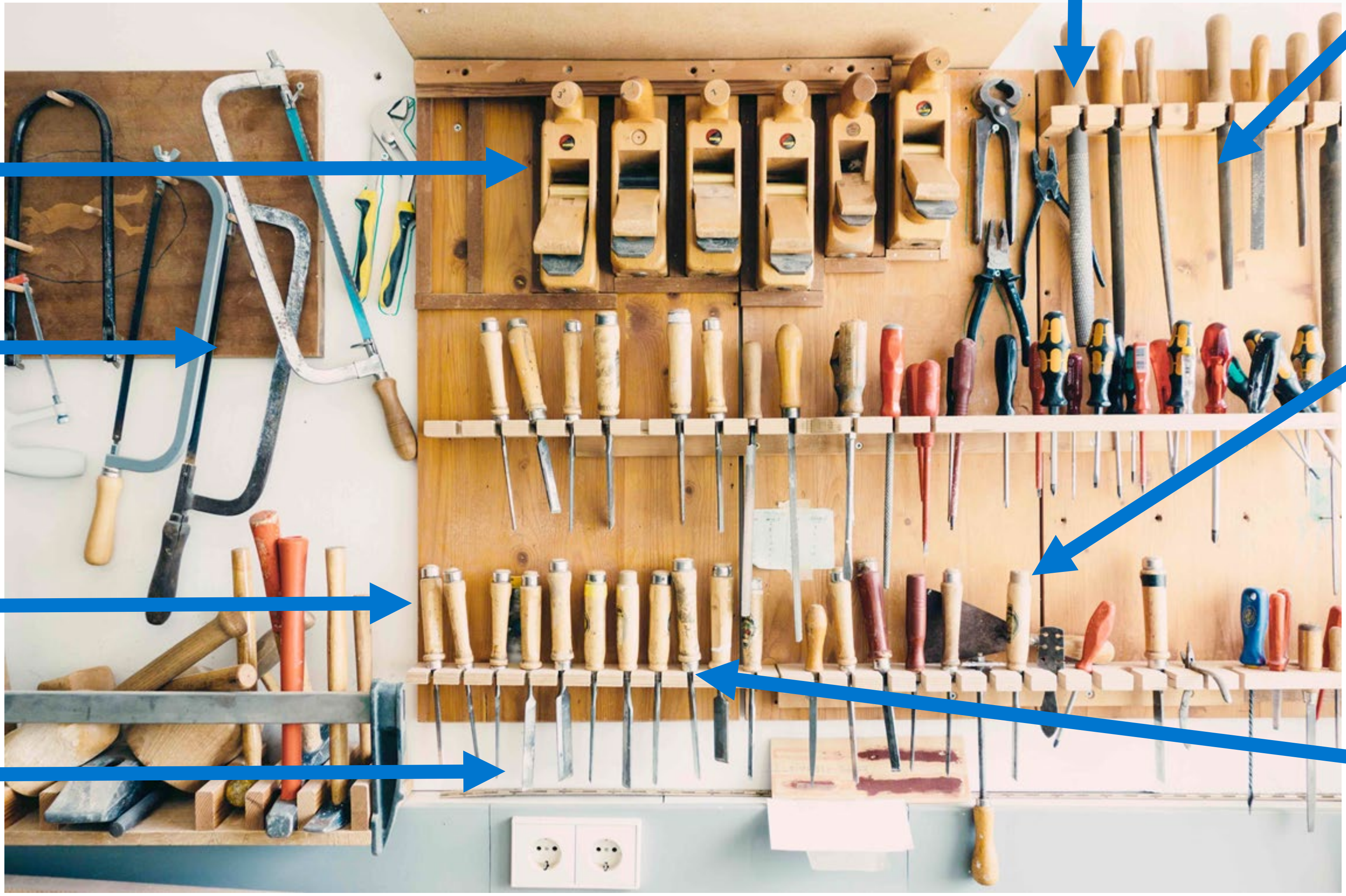


Choosing How to Invest Your Time

Ask Yourself

- Of my near / medium term tasks, which will provide the most long-term strategic value?
- Can I do a near term task a little bit differently to make it much more useful later?
- What (sub)problems can I solve with high accuracy, at scale?

Security Tools in Your Tool Belt



Targeting Vulns by Complexity / Class

Easy

- Missing TLS
- No security headers
- Calling dangerous fxns
- Missing security controls

Medium

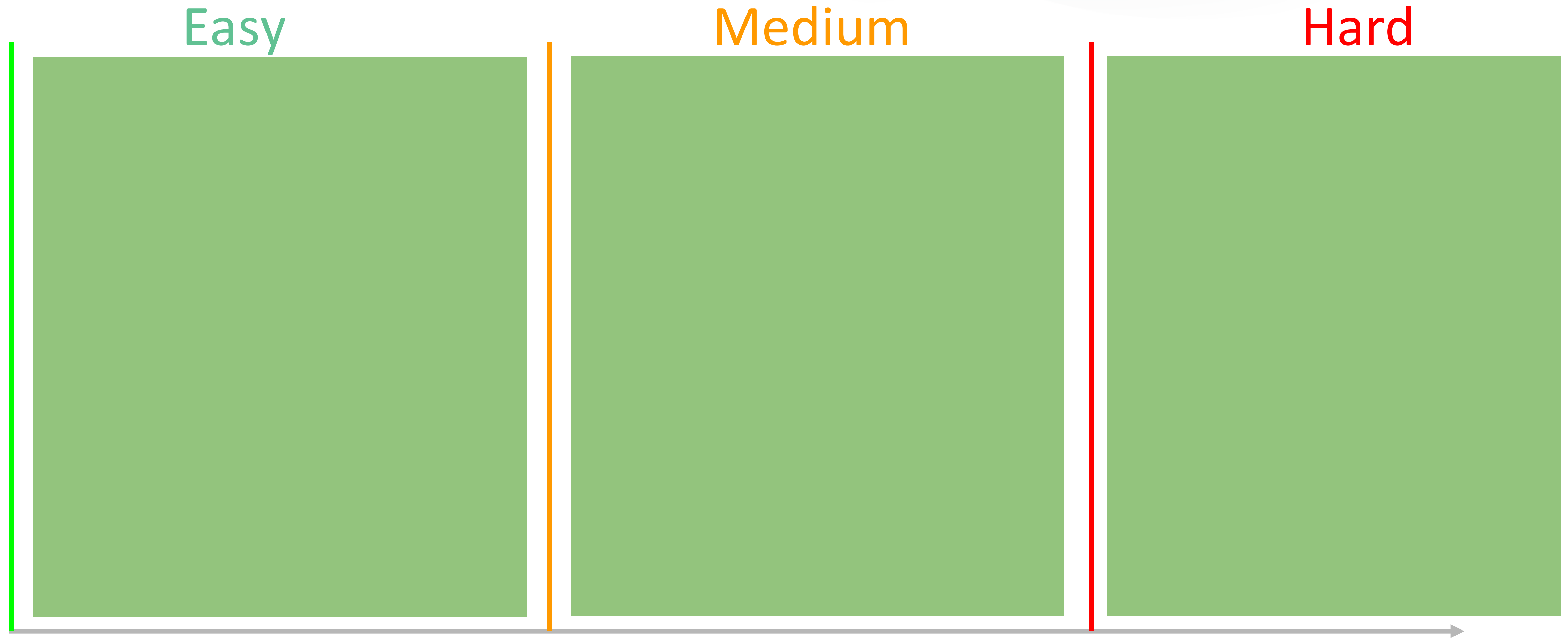
- Standard OWASP bugs
- XSS, SQLi
- XXE, SSRF
- …

Hard

- Complex, multi-step bugs
- Business logic flaws
- Abuse

Targeting Vulns by Complexity / Class

🟥 Secure defaults 🟩 Automated tools 🟦 Bug bounty 🟪 Pen tests



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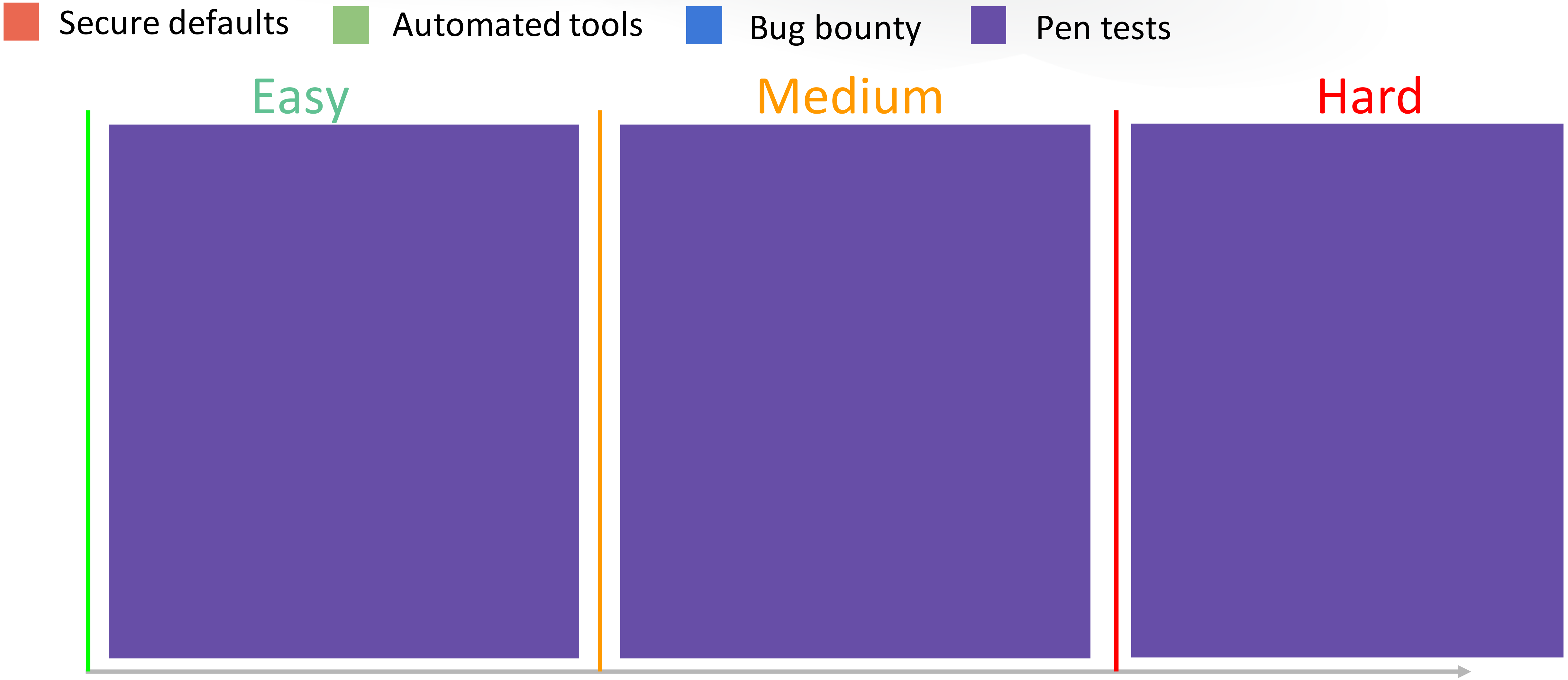
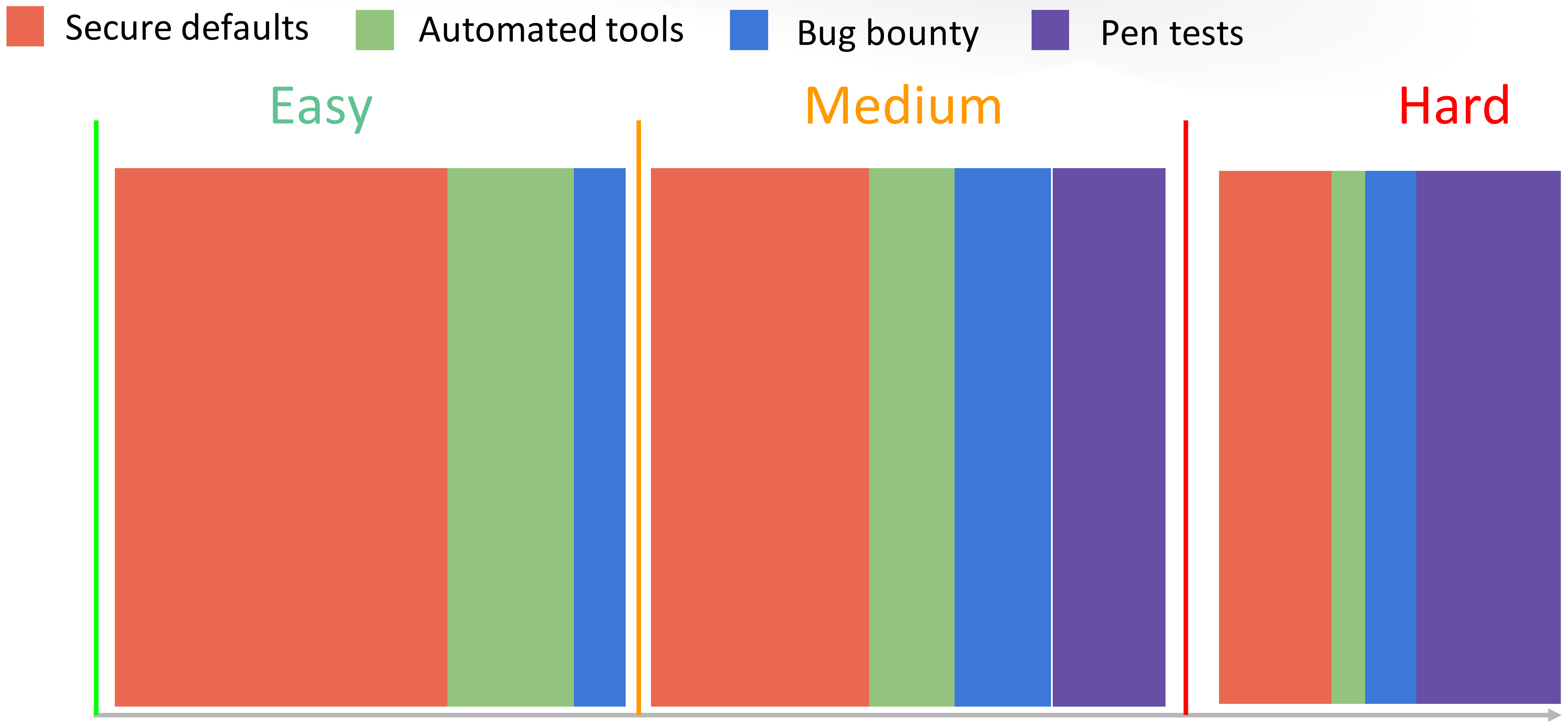
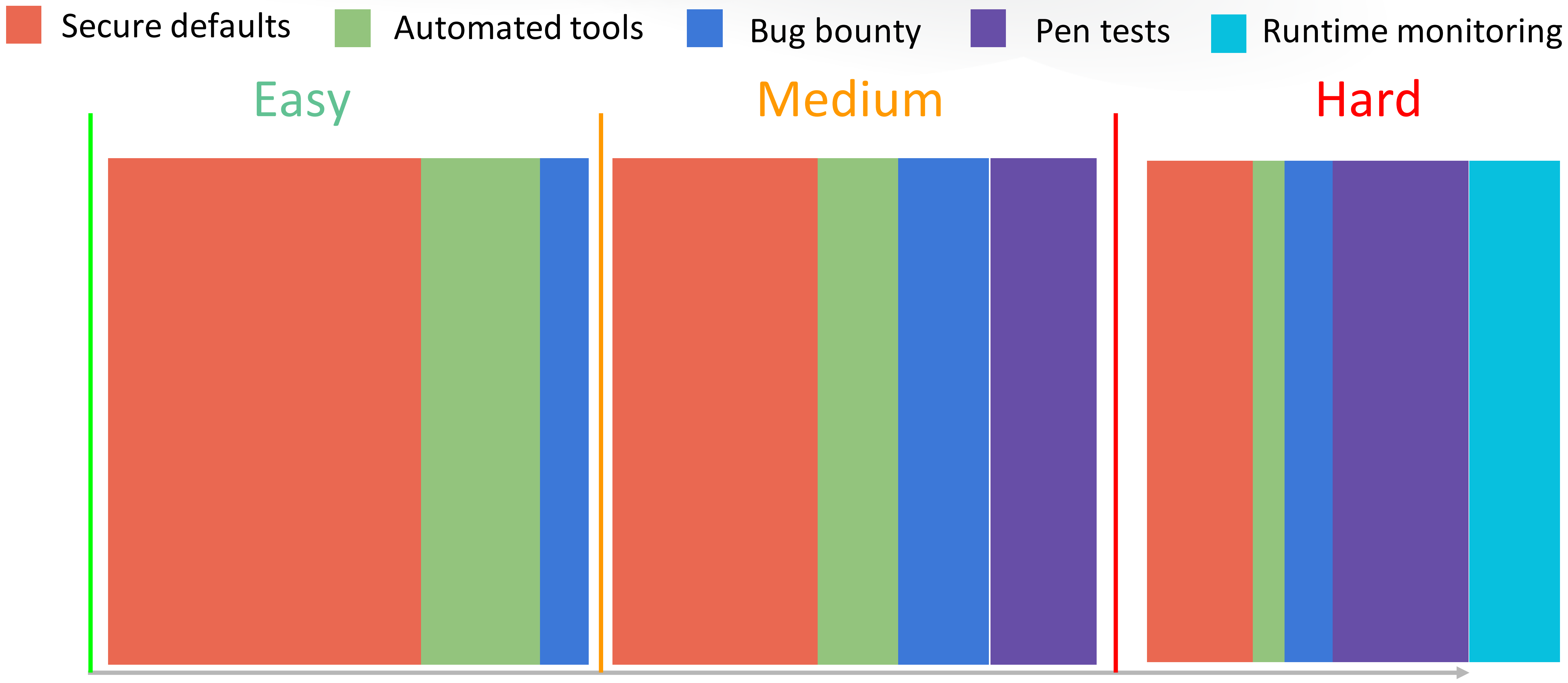


Targeting Vulns by Complexity / Class



Targeting Vulns by Complexity / Class

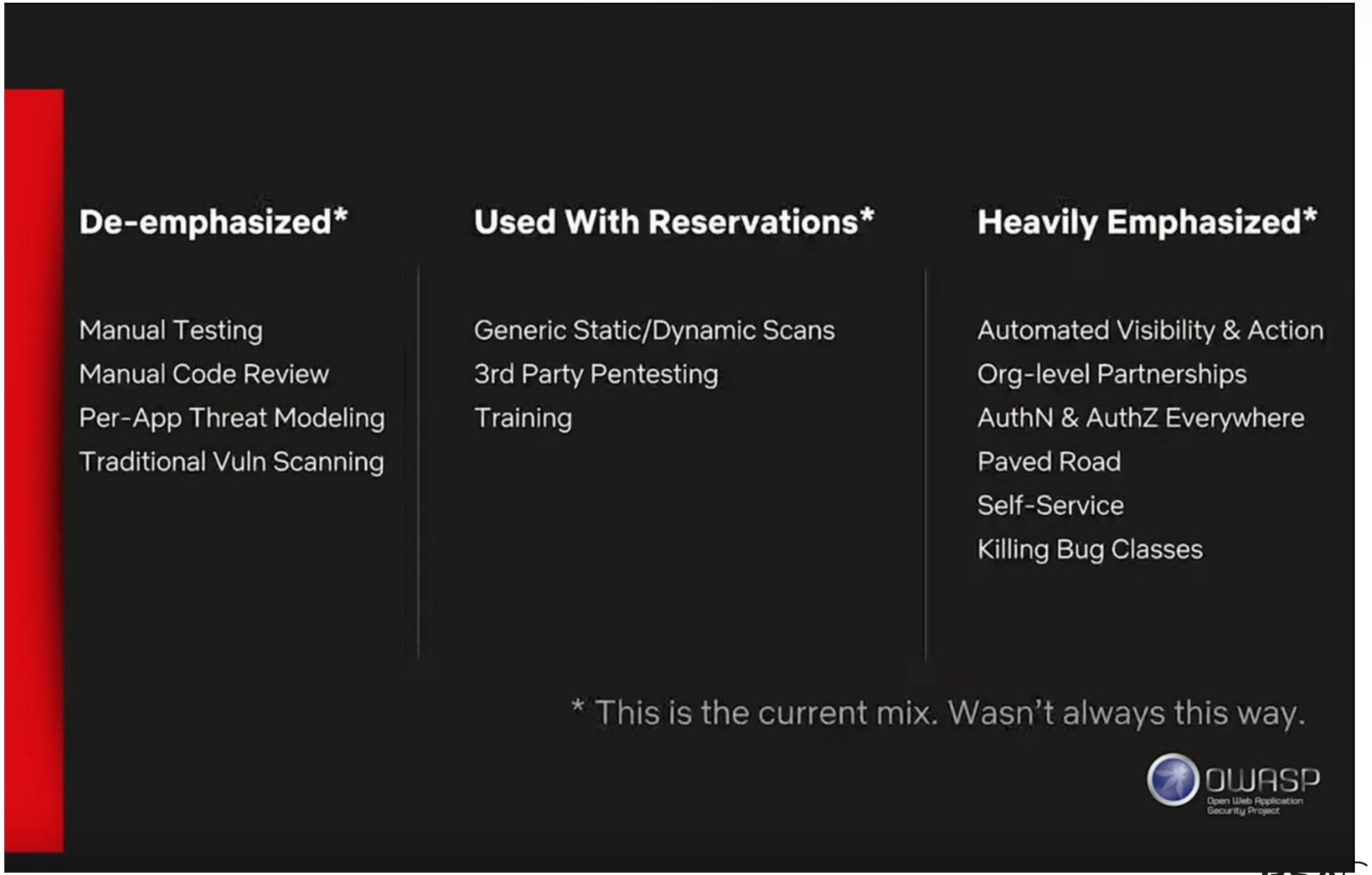


Targeting Vulns by Complexity / Class – Key Takeaways

- Solve as many of your problems as possible with **secure defaults**
- **Automated tools** won't solve all of your problems
- **Bug bounty** can provide decent coverage of low/medium hanging fruit
  - If you're building a new AppSec program, start with a private program with few researchers. Consider a pen test first and paying for triage.
- Use **pen testing** for the hard problems, where it provides best value
- **Runtime monitoring** for bugs that are too hard/inefficient to find in other ways

We Come Bearing Gifts: Enabling Prod Security w/ Culture & Cloud

AppSec Cali ’18 | Patrick Thomas, Astha Singhal



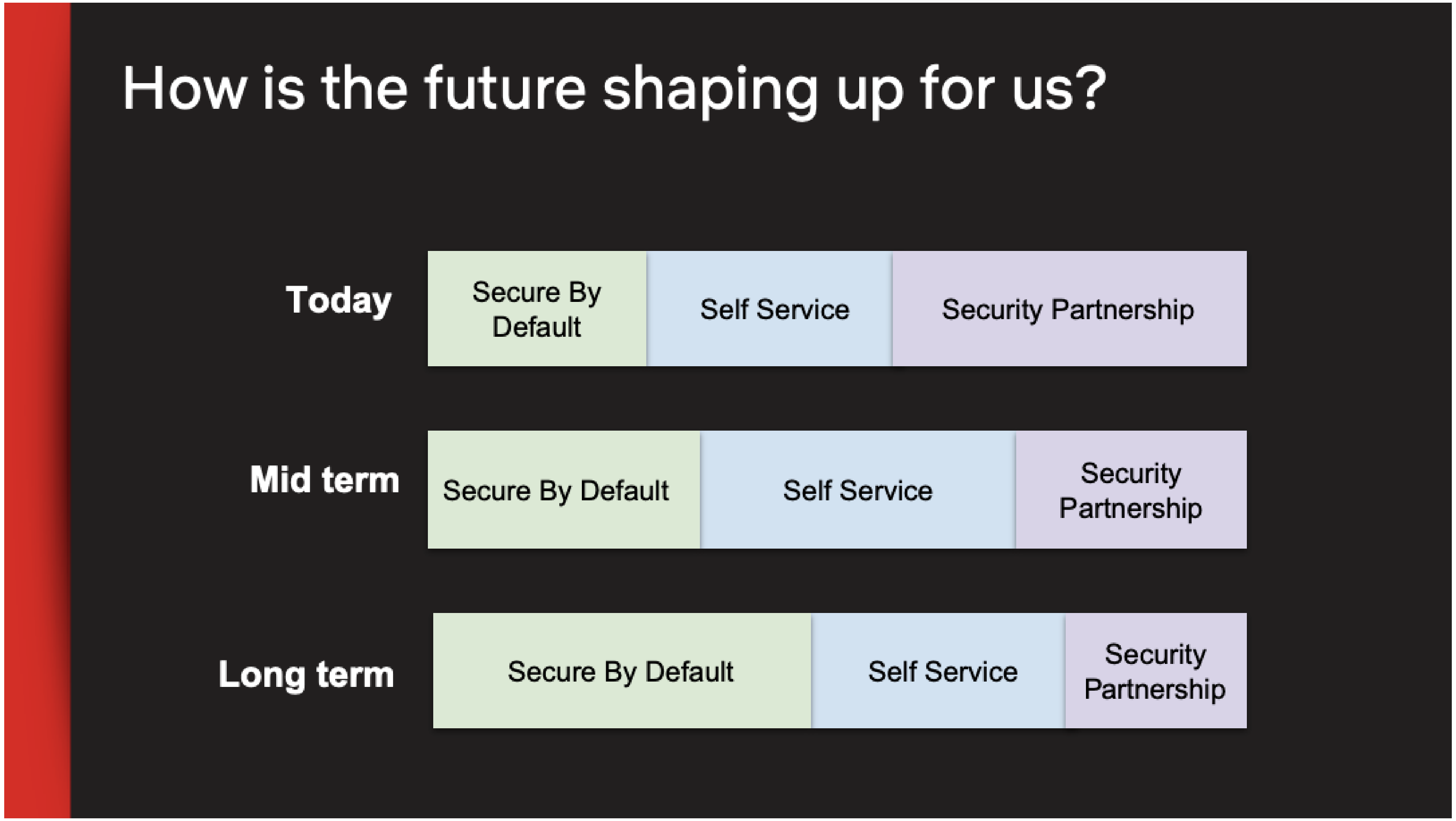
De-emphasized*	Used With Reservations*	Heavily Emphasized*
Manual Testing	Generic Static/Dynamic Scans	Automated Visibility & Action
Manual Code Review	3rd Party Pentesting	Org-level Partnerships
Per-App Threat Modeling	Training	AuthN & AuthZ Everywhere
Traditional Vuln Scanning		Paved Road
		Self-Service
		Killing Bug Classes

* This is the current mix. Wasn’t always this way.

OWASP Open Web Application Security Project

A Pragmatic Approach for Internal Security Partnerships

AppSec Cali ’19 | Scott Behrens, Esha Kanekar



How is the future shaping up for us?

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The Fundamentals

Vulnerability Management

Continuous Scanning

Asset Inventory

Vulnerability Management - Basics

Know your current state and if your future efforts actually work

Success Criteria

- Minimal friction for devs and security
- All vulns tracked in the same system as normal bugs
- All vulns processed through the same workflow (bug bounty, pen testing, tools, internal tests)
- Track relevant meta data

Vulnerability Management - Basics

Track Meta Data

- Relevant code base (and team/org)
- Vuln class - access controls, XSS, SQLi, open redirect, …
  - OWASP Top 10 is too broad, use a more detailed taxonomy, like Bugcrowd’s VRT
- Risk, Severity, Impact
- How was the vuln found? (Pen test, bug bounty, internal testing, tool A, tool B…)

Vulnerability Management - Leveling Up

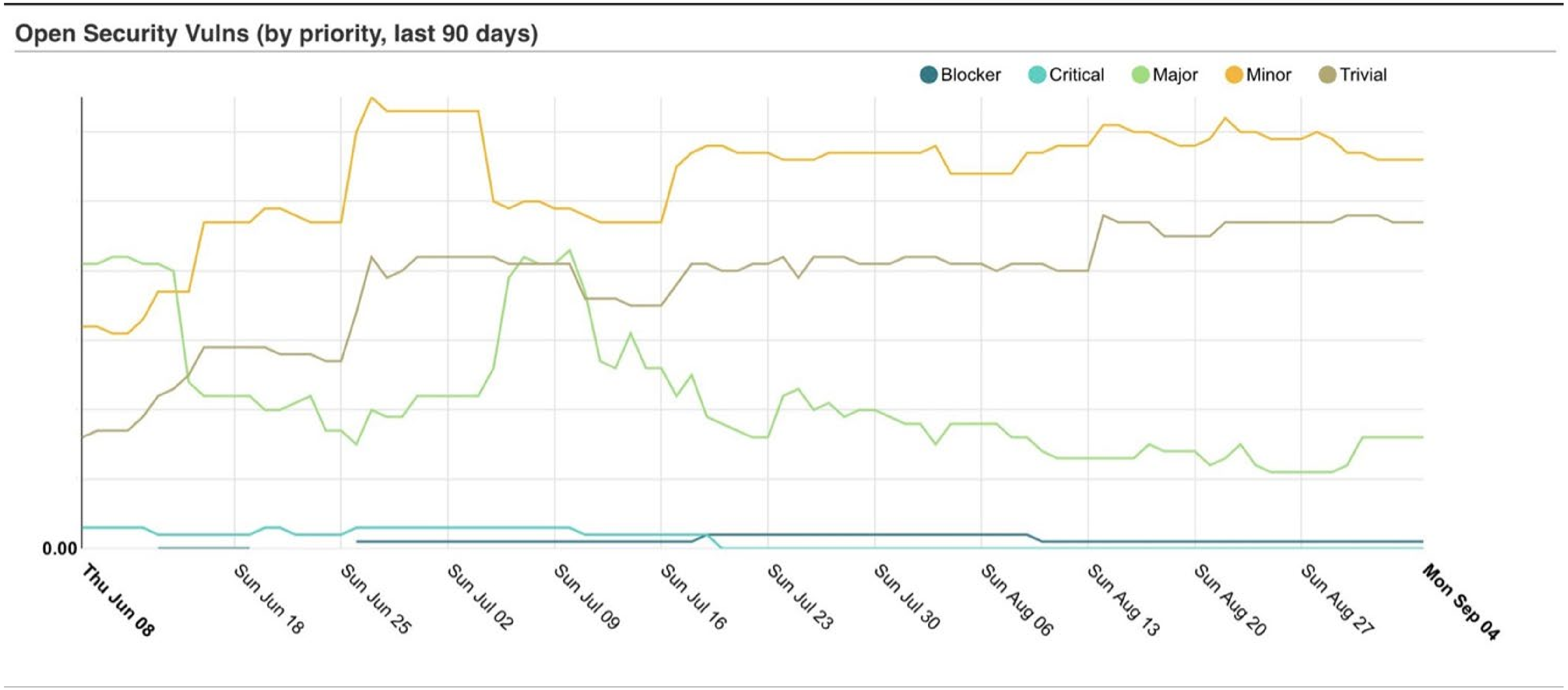
- Automate as much of the vuln ingestion and triage process as possible
    - Tool -> Triage -> Jira
    - Bug Bounty -> Triage -> Assign to appropriate team
- Create a vuln/risk dashboard that's viewable by project, team, org
    - Where should I invest security engineering efforts?
    - Puts (friendly) pressure on teams / orgs to improve

Vulnerability Management - Leveling Up

The Art of Vulnerability Management | Alex Nassar, AppSec Cali '19
Pro tips on creating a vuln management program that works for devs & security

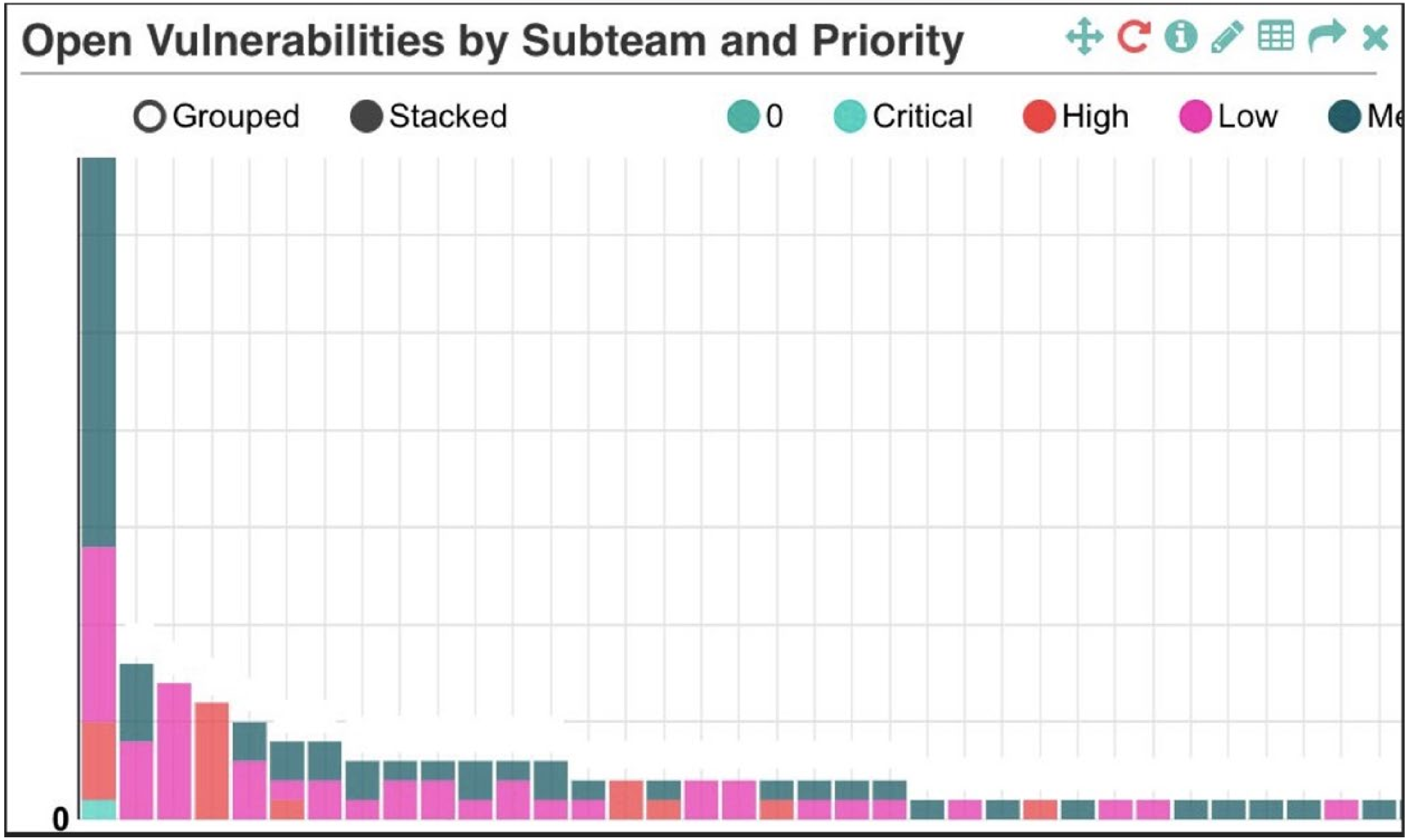
Data Driven Bug Bounty | Arkadiy Tetelman, BSides SF 2018
Use Bug Bounty data to inform where you invest AppSec time

Data Driven Bug Bounty - Open Vulns by Priority

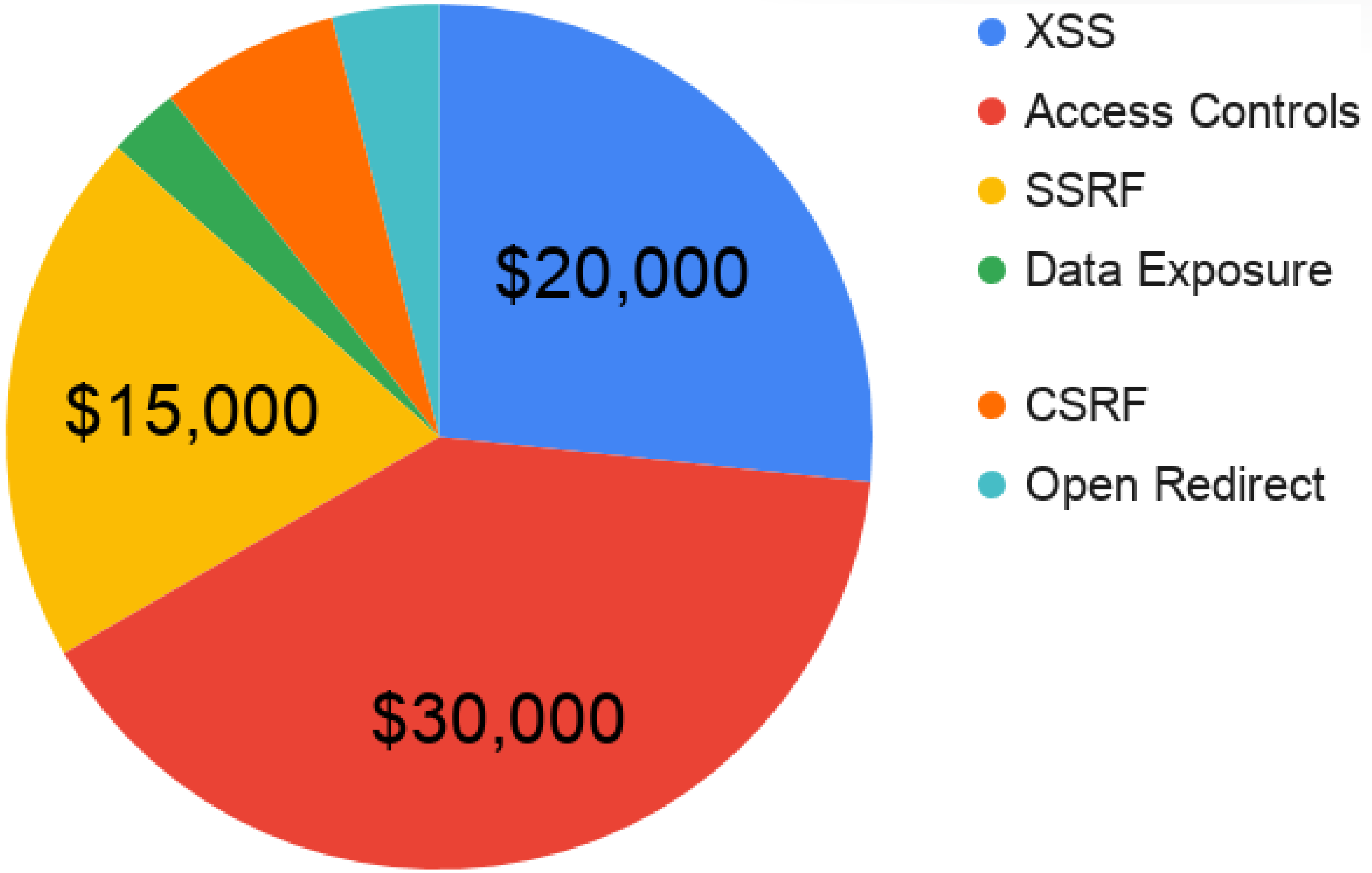


Data Driven Bug Bounty

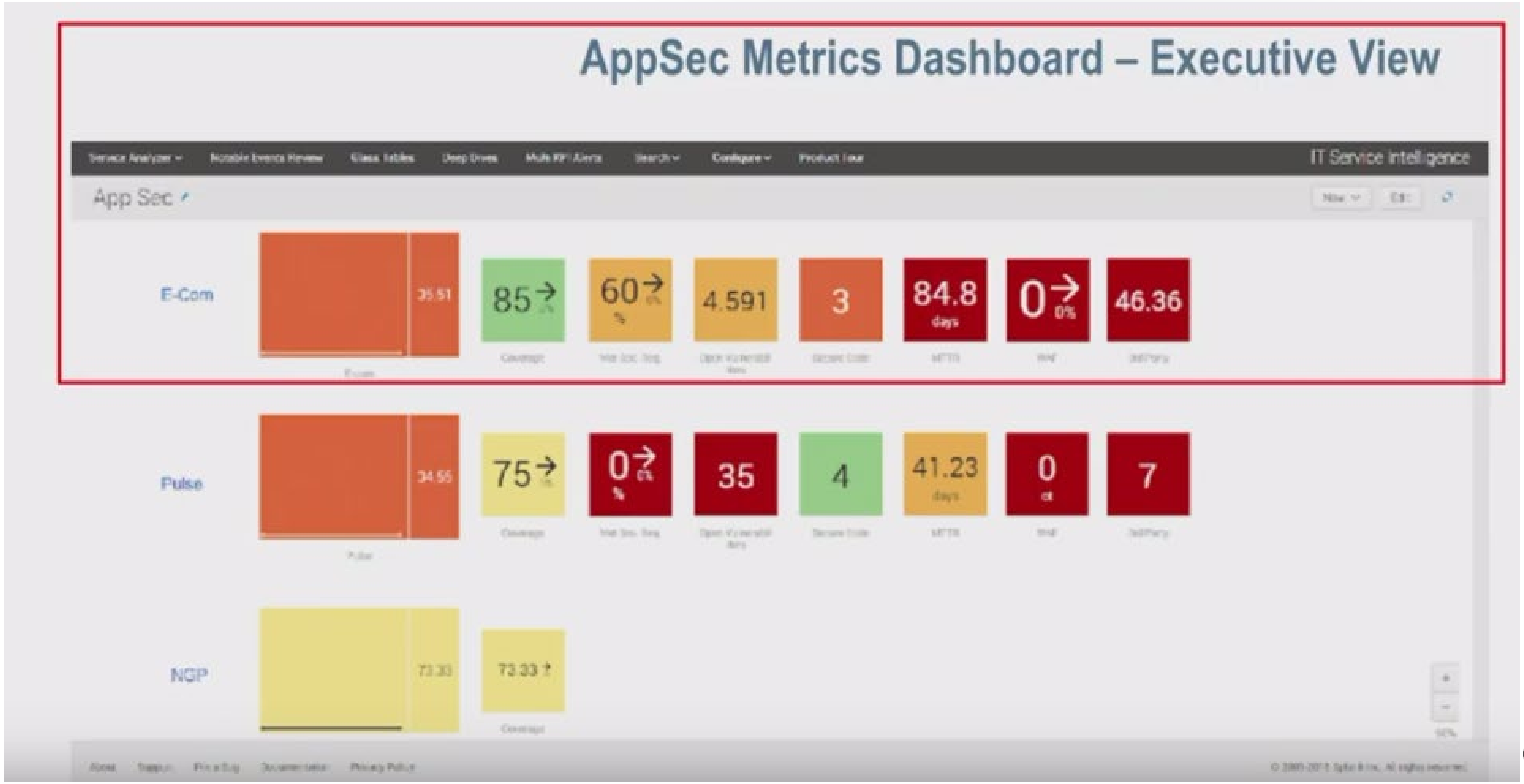
Open Vulns By Subteam & Priority



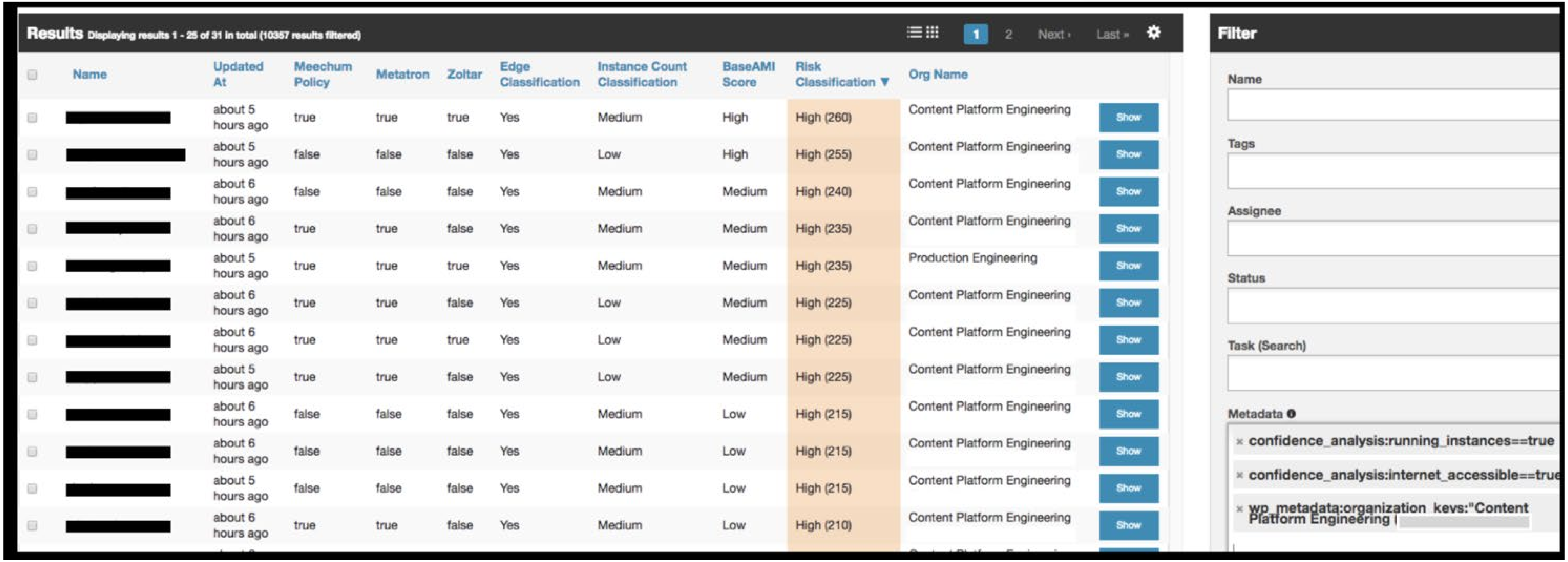
Bug Bounty Cost by Vulnerability Class



Domino's Delivery of a Faster Response was No Standard Order



A Pragmatic Approach to Internal Security Partnerships
AppSec Cali ’19 | Scott Behrens, Esha Kanekar



Results Displaying results 1 - 25 of 31 in total (10357 results filtered)

1 2 Next › Last »

	Name	Updated At	Meechum Policy	Metatron	Zoltar	Edge Classification	Instance Count Classification	BaseAMI Score	Risk Classification ▼	Org Name	
	[redacted]	about 5 hours ago	true	true	true	Yes	Medium	High	High (260)	Content Platform Engineering	Show
	[redacted]	about 5 hours ago	false	false	false	Yes	Low	High	High (255)	Content Platform Engineering	Show
	[redacted]	about 6 hours ago	false	false	false	Yes	Medium	Medium	High (240)	Content Platform Engineering	Show
	[redacted]	about 6 hours ago	true	true	false	Yes	Medium	Medium	High (235)	Content Platform Engineering	Show
	[redacted]	about 5 hours ago	true	true	true	Yes	Medium	Medium	High (235)	Production Engineering	Show
	[redacted]	about 6 hours ago	true	true	false	Yes	Low	Medium	High (225)	Content Platform Engineering	Show
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	[redacted]	about 5 hours ago	true	true	false	Yes	Low	Medium	High (225)	Content Platform Engineering	Show
	[redacted]	about 6 hours ago	false	false	false	Yes	Medium	Low	High (215)	Content Platform Engineering	Show
	[redacted]	about 6 hours ago	false	false	false	Yes	Medium	Low	High (215)	Content Platform Engineering	Show
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Filter

Name

Tags

Assignee

Status

Task (Search)

Metadata

× confidence_analysis:running_instances==true

× confidence_analysis:internet_accessible==true

× wp_metadata:organization_keys:"Content Platform Engineering

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The Fundamentals

Vulnerability Management

Continuous Scanning

Asset Inventory

Continuous Scanning - AppSec Pipeline

Core idea: continuously scan new code with static and dynamic analysis tools

Developer Machines
Static Analysis (SAST)

Code Hosting
Static Analysis (SAST)

Test/QA Environment
DAST (scan web apps)
Container scanning
Network vuln scanning
Fuzzing

Continuous Scanning - AppSec Pipeline

Core idea: continuously scan new code with static and dynamic analysis tools

Developer Machines

Static Analysis (SAST)
(SAST)

Code Hosting

Static Analysis (SAST)

Test/QA Environment

~~DAST (scan web apps)~~

~~Container scanning~~

~~Network vuln scanning~~

~~Fuzzing~~

Continuous Scanning - AppSec Pipeline

AppSec USA

Put Your Robots to Work: Security Automation at Twitter | ‘12

Providence: rapid vuln prevention (slides, blog, code) | ‘15

Cleaning Your Applications’ Dirty Laundry with Scumblr (code) | ‘16

Scaling Security Assessment at the Speed of DevOps | ‘16

SCORE Bot: Shift Left, at Scale! | ‘18

Continuous Scanning - AppSec Pipeline

Salus: How Coinbase Sales Security Automation (blog, code) DSC London '18

Orchestrating Security Tools with AWS Step Functions (slides) DeepSec '18

A Case Study of our Journey in Continuous Security (code) DSC London '19

Dracon- Knative Security Pipelines (code) Global AppSec Amsterdam '19

Continuous Scanning - Trends & Best Practices

- Focus on iteration speed - adding/removing tools, testing new rules
- Scan unit: pull requests - every commit is too noisy, e.g. work in progress
- Scans should be fast (a few sec) - give dev feedback while context is fresh
    - Can do longer / more in depth scans daily or weekly
- Tool findings should be shown within dev systems (e.g. on PR as a comment)
    - Findings must always be actionable – how does the dev fix it?
- Focus on high signal checks - +95% true positives
    - Otherwise causes ill will with devs + too much security team operational cost
- Make sure to capture metrics - common finding types, FP rate, etc.
- You'll need to build some deduplication and whitelisting logic

Being able to `map`/`reduce` over all of your code & live systems is really useful

Continuous Scanning - AppSec Pipeline

Good principles, mindsets, and perspectives

Building a Secure DevOps Pipeline | AppSec USA ’17, M Tesauro, A. Weaver
Case study and useful principles behind building a pipeline (code)

*AST In CI/CD – how to make it WORK! | DSC Singapore ‘18
Ofer Maor gives a great overview of SAST, DAST, IAST, … and their pros/cons

Static Analysis by Complexity

Easy

Medium

Hard

`grep` (regexes)

- Operates on strings

Control / Data flow analysis (SAST)

- Can reason about how data flows through system

Static Analysis by Complexity

Easy

`grep` (regexes)

- Operates on strings

Pro: Fast
Con: Not expressive

Medium

Hard

Control / Data flow analysis (SAST)

- Can reason about how data flows through system

Pro: Expressive
Con: Slow, noisy (FP)

Static Analysis by Complexity

Easy	Medium	Hard
`grep` (regexes)	Linting / Abstract Syntax Tree (AST)	Control / Data flow analysis (SAST)
• Operates on strings	• Source code aware	• Can reason about how data flows through system
Pro: Fast Con: Not expressive	Middle ground: • Fast • Match source code structures, some control/data flow	Pro: Expressive Con: Slow, noisy (FP)

Watch this space!

Static Analysis – Security Linting

Writing custom lightweight static analysis checks (AST matching)

Practical Static Analysis for Continuous Application Security - AppSec USA '16
Justin Collins on building custom, lightweight linting rules (Ruby, Python, JS)

How to Write Custom, Lightweight Static Analysis Tools (code) - ShellCon '19
Clint Gibler/Daniel DeFreez- AST matching Ruby (explore)/JS (RCE) w/ semantic

Tools

- Useful multi-language parsers: semantic, bblfsh
- Simply match code patterns (code-aware `grep`): sgrep

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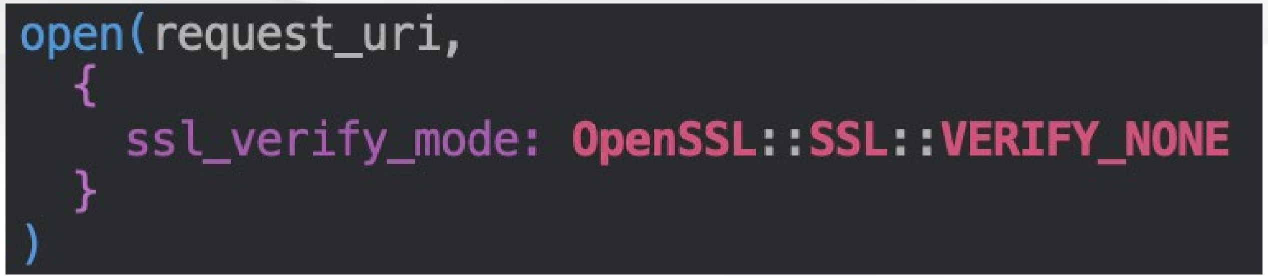
Continuous Scanning

What should we look for?

Static Analysis - Code



```
open(request_uri,
  {
    ssl_verify_mode: OpenSSL::SSL::VERIFY_NONE
  }
)
```

- High signal vulnerability checks and security anti-patterns
  - E.g. Disabling TLS verification
- Block banned or dangerous functions
  - E.g. Calls to `exec()`, `eval()`
  - mozilla/eslint-plugin-amo, mozilla/eslint-plugin-no-unsanitized - disallow `innerHTML()`, etc.
- Detect security-relevant code additions
  - "Looks like you're adding some crypo-related code, let's chat."
- Alert on sensitive file changes
  - AuthZ/AuthN, login flow, things that should rarely change

Open Source Static Analysis Tools

- C/C++ - Clang Static Analyzer, Phasar, Cppcheck
- C#/.NET - Puma Scan, Security Code Scan
- Golang - gosec, glasgo
- Java - SpotBugs, Frameworks: Soot, WALA
- JavaScript/Typescript - NodeJsScan, eslint, tslint, eslint-plugin-no-unsanitized
- Python - bandit, dlint, pyre-check (data-flow analysis to find web app bugs)
- Ruby - Brakeman

Massive list: mre/awesome-static-analysis

Static Analysis – Out of Date Dependencies

Automate the Discovery & Eradication of Open-Source Software Vulns | BlackHat USA ‘19
Netflix's Aladdin Almubayed on how to identify and eliminate open-source vulnerabilities across applications you own at scale (slides)

Tools: OWASP DependencyCheck, language-specific tools

Static Analysis – Infrastructure as Code

Static Analysis for Code and Infrastructure | Nick Jones, DevSecCon London '16
Scan infra as code (Ansible, Puppet, Chef, …) for insecure configs

Security Linting Tools

- Terraform: liamg/tfsec, bridgecrewio/checkov, cesar-rodriguez/terrascan
- CloudFormation: Skyscanner/cfripper, stelligent/cfn_nag
- AWS IAM policies: Parliament (blog | code) can detect cases like when a role could escalate its privileges

Continuous Scanning - Key Takeaways

- Build the capability to scan every: PR, code base, deployed service
- High signal checks only
- Ensure a security baseline - don’t try to find every bug
- Scan for (missing) security controls, security-relevant changes

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The Fundamentals

Vulnerability Management

Continuous Scanning

Asset Inventory

Asset Inventory - What is It?

Depends on who you ask!

A list of the things you own (code, servers, databases, employee devices, …)

Common Approaches

- Blackbox network-based - OSINT, certificate transparency, …
- Whitebox network-based - Give tool read access to your cloud env
- Whitebox holistic - Integrations with cloud provider, code hosting, ...

Asset Inventory - Basics

Know what you own and how they connect

Success Criteria

- Code: Meta info file in repos containing owning team, team lead, security PoC, …
- Cloud:
  - Live servers/databases/load balancers…
  - Services used
  - Credentials, secrets, API tokens
  - Roles, permissions
  - Network ACLs, segmentation

Asset Inventory - Leveling Up

- Build capabilities to get visibility into other assets
  - Current employees
  - Employee phones and laptops
  - Deployment pipeline - track code from repo -> QA/staging -> production
- Enable querying crossing multiple knowledge domains

Asset Inventory - Talks

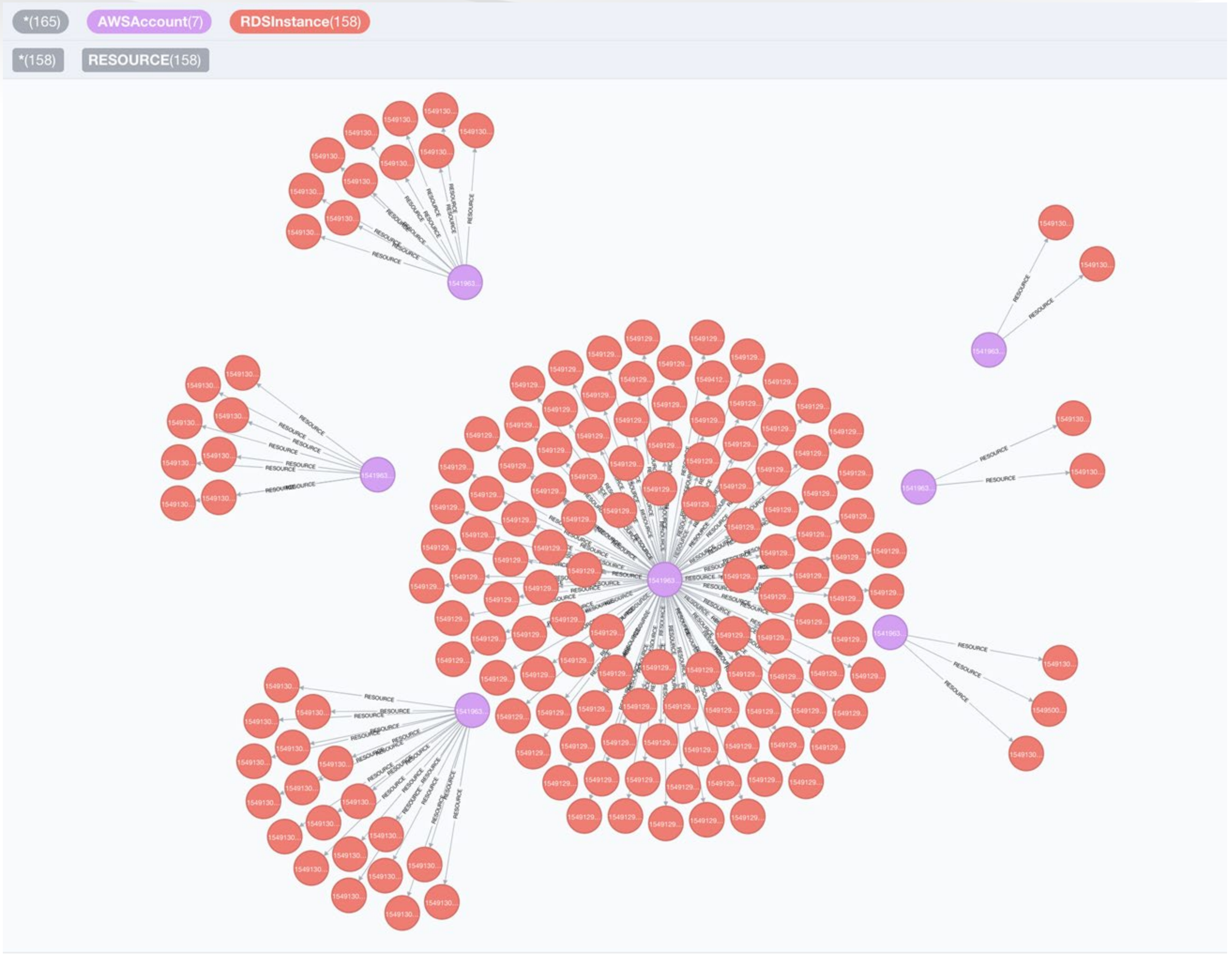
Lyft Cartography: Automating Security Visibility and Democratization | BSidesSF ‘19
Sacha Faust: Represent your assets as a graph, search across them (code)

Overcoming old ways of working with DevSecOps - Culture, Data, Graph, & Query
Erkang Zheng, DevSecCon Seattle ’19 – Similar approach ^, security policy as code

Expose Yourself Without Insecurity | Art Into Science ’20, Rob Ragan, Oscar Salazar
Survey of asset inventory tools and approaches, inside/out vs. outside/in tradeoffs

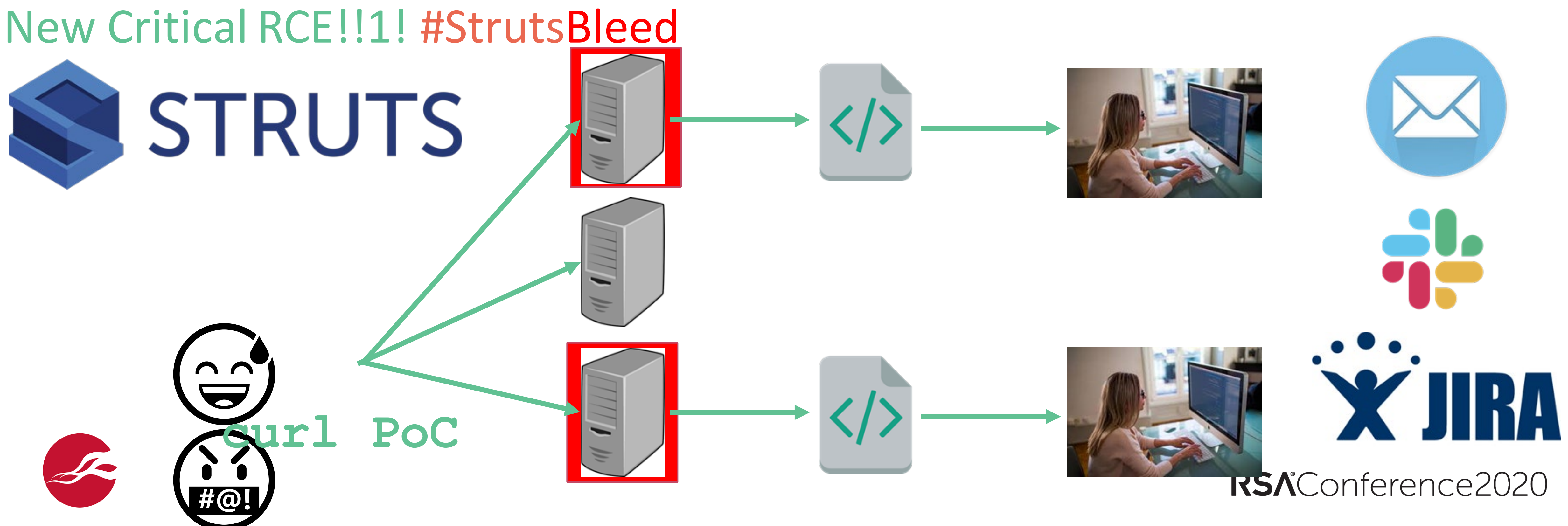
Lyft Cartography

Represents assets as a graph in Neo4J



Asset Inventory - Examples

- Which RDS instances have encryption turned off?
- Which EC2 instances are directly exposed to the internet?



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Scaling Your Efforts

Threat Modeling
Security Engineering
Detection & Response

Threat Modeling

Challenge: Security team can't threat model every story. What do you focus on?

Approaches:

1. Self-service security questionnaires
2. Add lightweight threat modeling to SDLC
3. Threat model as code

Then security engineers get involved in highest risk services and new features

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Scaling Your Efforts

Threat Modeling
Security Engineering
Detection & Response

Security Engineering - “Paved Road”

Core idea: Build libraries / tools that are secure by default for dev teams

Framework/tech choices matter

- Mitigate classes of vulns

Areas to consider

- Managing secrets
- Anything related to crypto
- Authentication / Authorization
- SQL, file system access
- Shell `exec`()

Security Engineering - Examples

- Port front end to React - ~~XSS~~
- Wrote data model wrapper library - ~~SQLi~~

Key takeaways:

- "<X> is hard to do securely, have to be aware of threats 1, 2, and …"
  - Build a secure by default implementation
- "Hitch your security wagon to developer productivity" - Astha Singhal, Netflix
- The secure version should have an even better dev UX than the old way
- Integrate security at the right points (e.g. new project starter templates) to get automatic, widespread adoption with minimal effort

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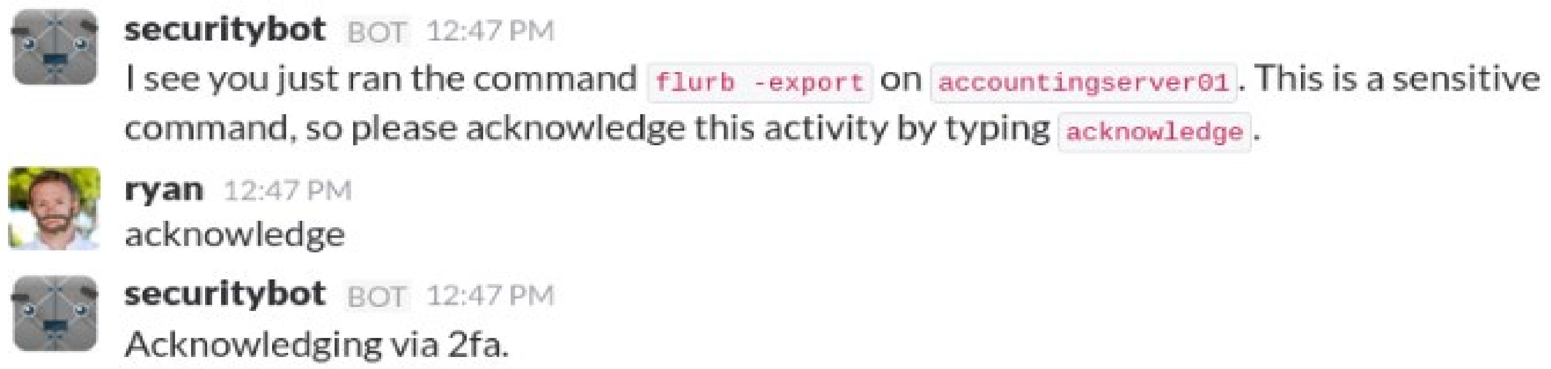
Scaling Your Efforts

Threat Modeling
Security Engineering
Detection & Response

Slack IR Bot

Core idea: When a fishy event occurs, prompt originating user with Slack bot question + 2FA. Only escalate if user did not initiate action.

Motivation: Push validation to devs to free up security engineer time.



securitybot BOT 12:47 PM
I see you just ran the command `flurb -export` on `accountingserver01`. This is a sensitive command, so please acknowledge this activity by typing `acknowledge`.

ryan 12:47 PM
acknowledge

securitybot BOT 12:47 PM
Acknowledging via 2fa.

An example interaction with securitybot.

Slack IR Bot

Core idea: When a fishy event occurs, prompt originating user with Slack bot question + 2FA. Only escalate if user did not initiate action.

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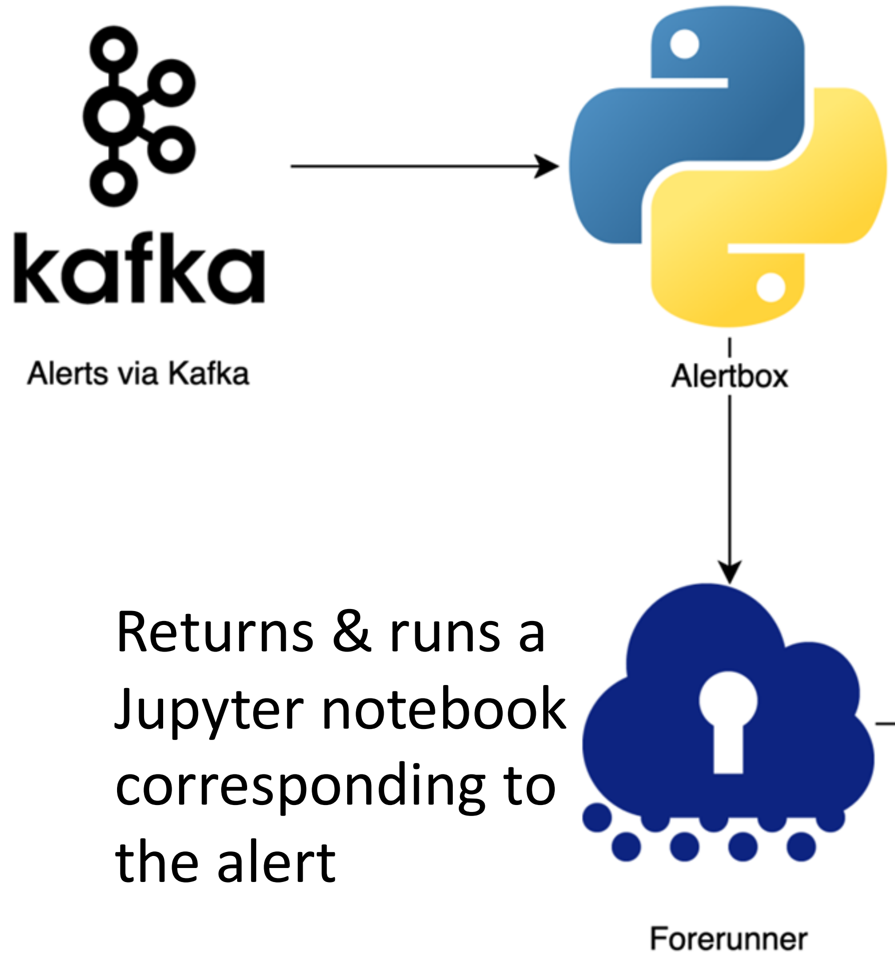
- Ryan Huber, Slack - Distributed Security Alerting ‘16
- Dropbox - Meet Securitybot: Open Sourcing Automated Security at Scale 2017 (code)
- Empowering the Employee: Incident Response with a Security Bot
  - Pinterest - Jeremy Krach, AppSec USA 2018

How Dropbox Builds Tools for Threat Detection & IR

Something sketchy happened



Grabs context from disparate systems

- Users
- Hosts
- Processes
- ...

Returns & runs a Jupyter notebook corresponding to the alert

Investigation happens in Jupyter notebook

- Repeatable
- Documented

Automating SOC Security Runbooks

- Write security runbooks that define how to respond to a given event
    - AWS Lambdas spin up to call the relevant security products, custom scripts, etc

Blog Posts

- Twilio's SOCless: Automated Security Runbooks
    - Source code | Docs
- Auth0: Guardians of the Cloud: Automating the Response to Security Events

Detection & Response - Key Takeaways

- Push first line triage to originating user (as appropriate)
- Any context needed for human analyst to proceed - gather automatically
- Document runbooks for how you respond to different events - automate

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Security EndGame

Automating Least Privilege

Targeting Vuln Classes: Case Study

Enforce Invariants

Automating Least Privilege

- Least Privilege: Security Gain without Developer Pain | Enigma '18 (code)
- New apps at Netflix are granted a base set of AWS permissions
- RepoKid gathers data about app behavior and automatically removes AWS permissions, rolls back if failure is detected
- Apps converge to least privilege with minimal security team interaction
- Unused apps converge to **zero**.

Automating Least Privilege

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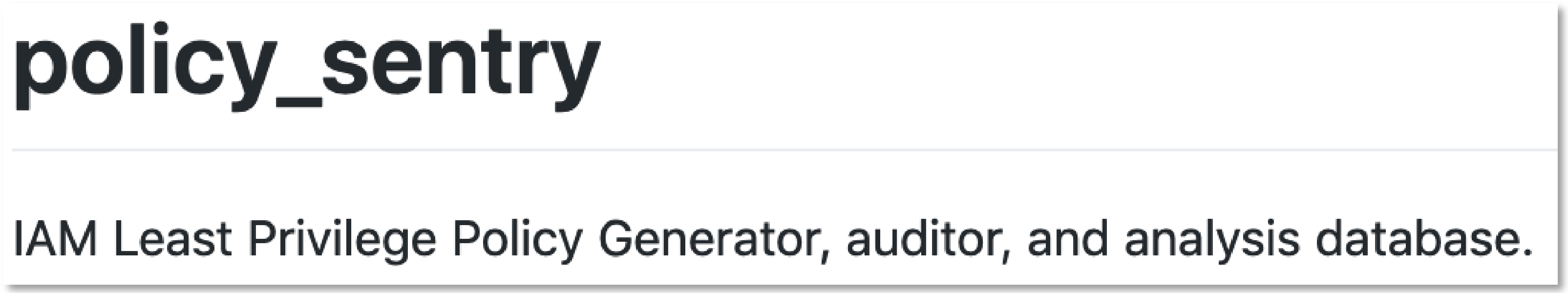
policy_sentry

IAM Least Privilege Policy Generator, auditor, and analysis database.

By Kinnaird McQuade of Salesforce (blog) (code)

Automating Least Privilege - Key Takeaways

- Ongoing time requirements from security team: none (some maintenance)
- Security benefit / risk reduction: huge

Any time you can find opportunities like this, you should take them.

=> Maximize ratio of security ROI to ongoing time requirements for sec team

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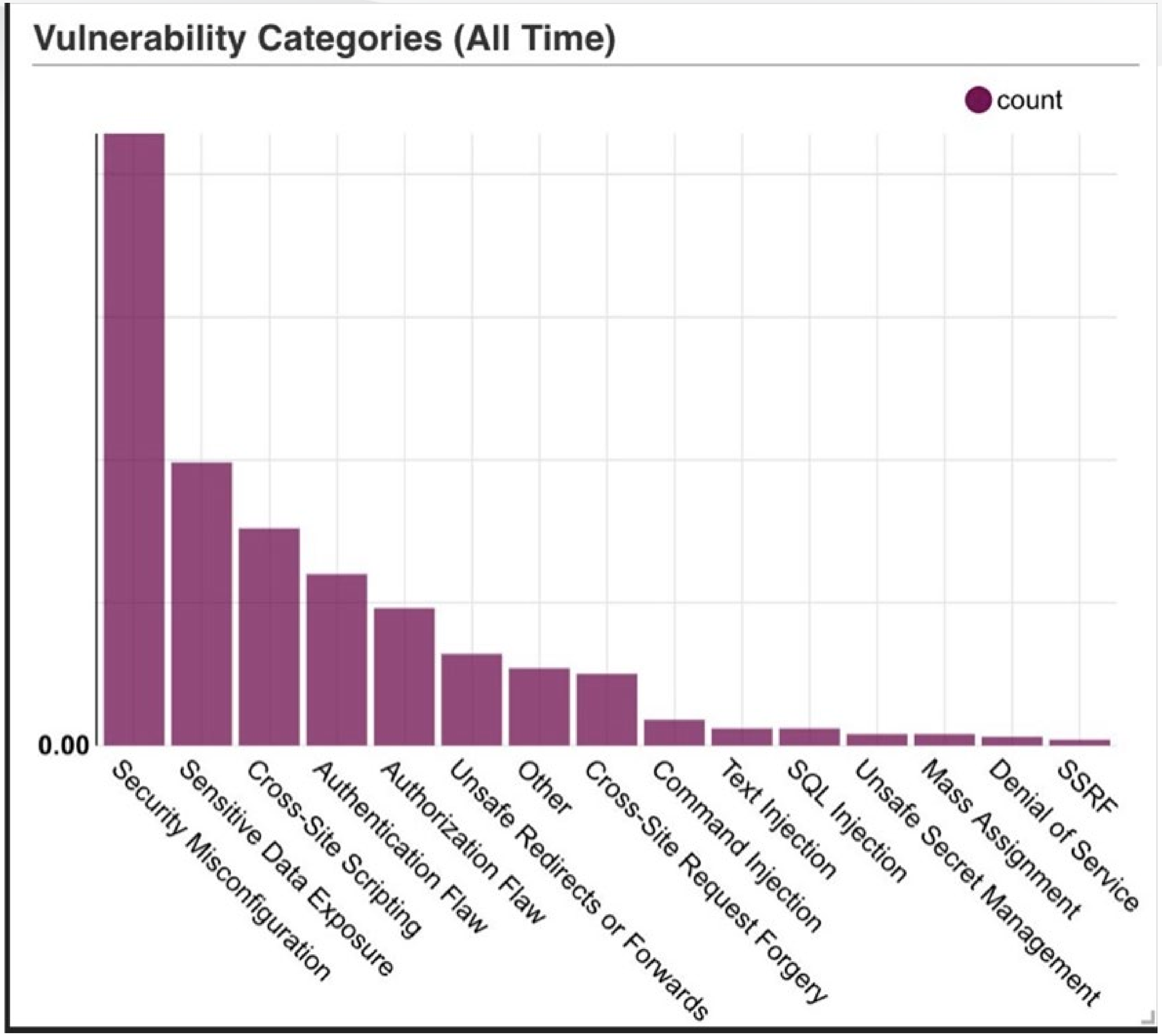
Security EndGame

Automating Least Privilege
Targeting Vuln Classes: Case Study
Enforce Invariants

Data Driven Bug Bounty

Vulns by Category



Help!

“We’re not getting much value out of <popular SAST tool>, can you review how we’re doing things and see what makes sense for us?”

Eliminating Bug Classes: Scoping the Problem

“How do we get more value from <current SAST tool>?”

“How can we make our SAST tool find more bugs of higher criticality with less manual time?”

“How can we find bugs more efficiently regardless of approach?”

At the end of the day:

Given limited AppSec engineer **time** and **budget**, what’s the best way for us to **reduce overall risk**?

Note: Not tool or approach-specific

How to Do This at Your Company

Aggregate your vulns over the past N quarters

- Group by vuln class (access controls, XSS, SQLi, open redirect, …)
- Group by how you found them (pen test, bug bounty, internal testing, …)
- Weighted by severity/risk/impact

How to Do This at Your Company

Aggregate your vulns over the past N quarters

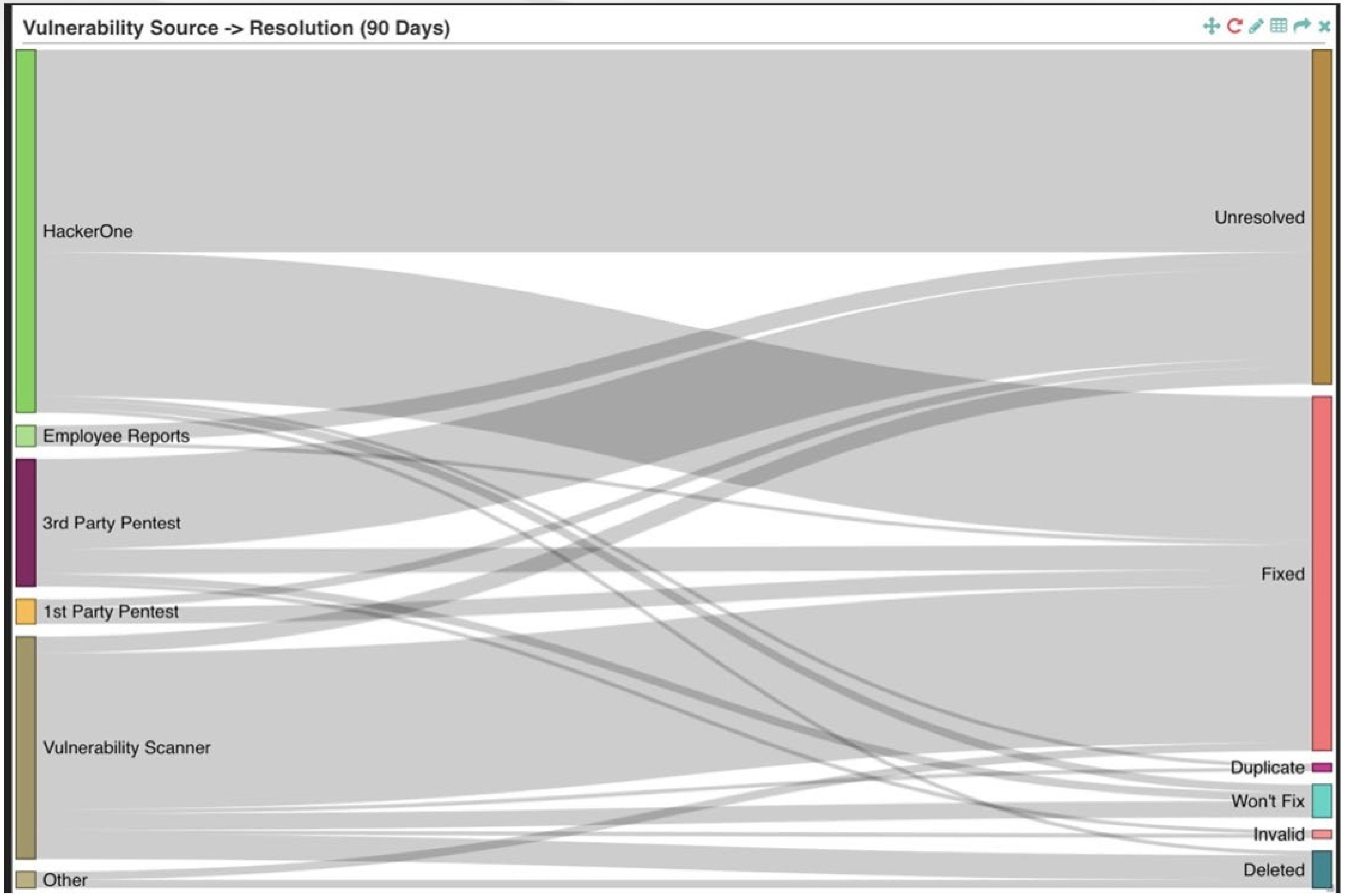
- Group by vuln class (access controls, XSS, SQLi, open redirect, …)
- Group by how you found them (pen test, bug bounty, internal testing, …)
- Weighted by severity/risk/impact

Review the vulns, what can **find / prevent** them at scale?

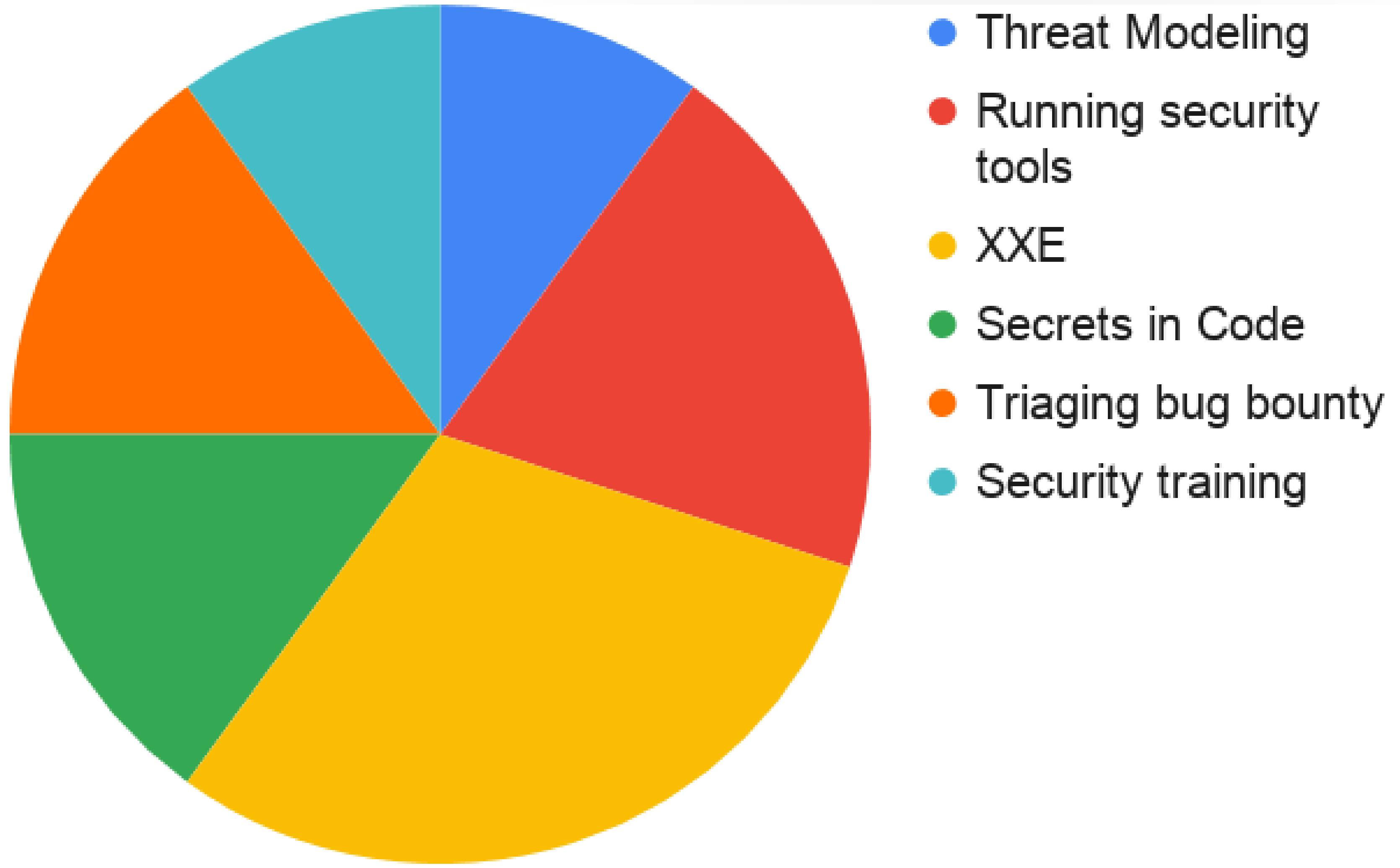
- **Goal**:
  - Minimize **cost** (bug bounty, pen test, tool licensing)
  - AppSec **time** (finding bugs manually, triaging tool results)
- Is one method finding most of your high severity vulns?
- What's worked well for your org or team in the past?
  - Any success stories for other vuln classes you can leverage?

Data Driven Bug Bounty

Vuln Source
To
Resolution



Your AppSec Time



Your AppSec Time - XXE

Current:

– Developer training:	2 hours / month
– Triaging XXE-related bug bounty submissions:	2 hours / week
– Working with devs to fix XXE issues:	3 hours / week
– Validating XXE fixes:	1 hour / week
– Configuring SAST scans for XXE, triaging results:	1 hour / week
– … DAST … :	1 hour / week
– …	

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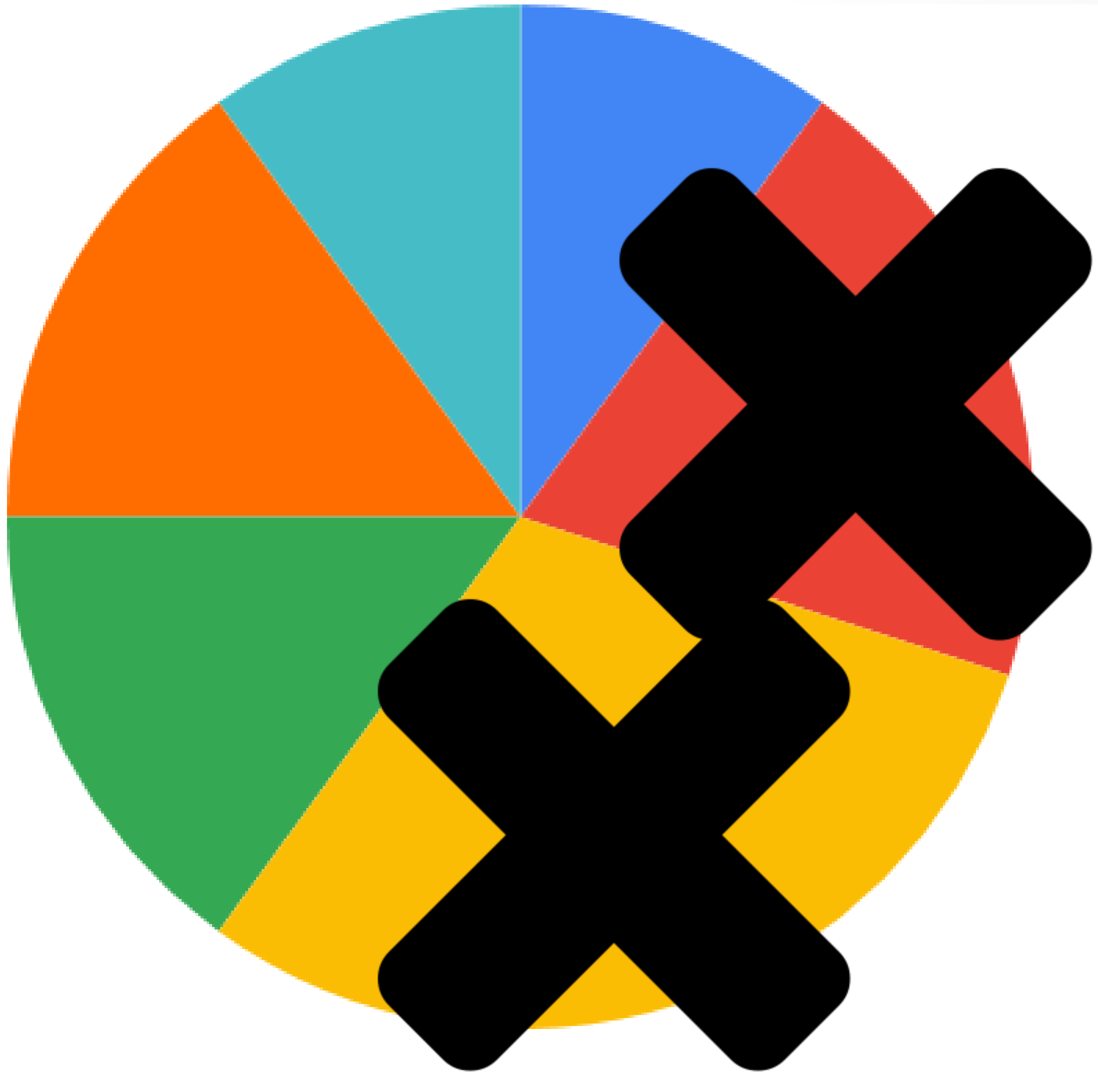
– …	

- **Future:**
  - Build a safe by default wrapper library for parsing XML that disables DTDs (External Entities)
  - Teach devs about the new library and roll it out everywhere
  - Scan every PR for XML parsing that doesn't use this library
  - **Done**

Ban Footguns: How to standardize how devs use dangerous aspects of your framework | ShellCon '19

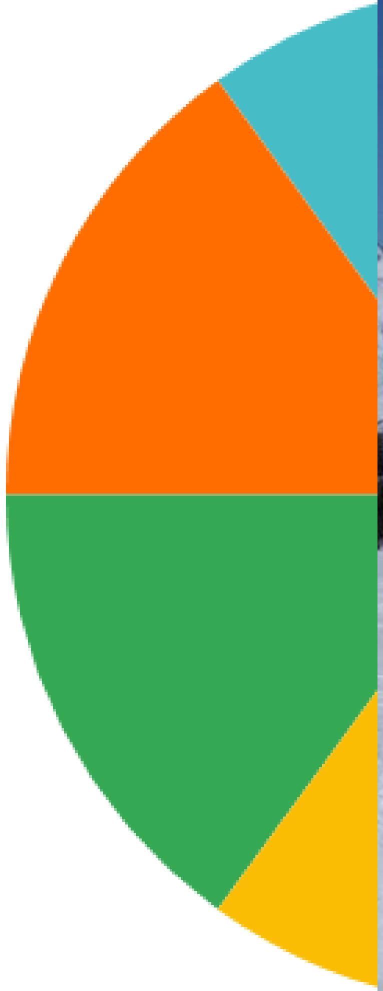
Morgan Roman on how DocuSign eliminated Regex DoS, XXE, open redirects, SSRF via secure-by default libraries + ensuring their use.

Your AppSec Time



- ● Threat Modeling
- ● Running security tools
- ● XXE
- ● Secrets in Code
- ● Triaging bug bounty
- ● Security training

Your AppSec Time



Security Engineering is the compound interest of security.

@clintgibler

Targeting Vuln Classes - Key Takeaways

- Use vulnerability history to determine where to invest effort
- Consider: vuln classes, what’s finding them, impact
- What’s the most effective way (AppSec time / $) to reduce risk?
- Solving bug classes amplifies your effectiveness

RSAConference2020

Security EndGame

Automating Least Privilege
Targeting Vuln Classes: Case Study
Enforce Invariants

Enforce Invariants

Core idea: Enforce/Alert on things that should always or never be true

AWS instances should never be accessible on all ports to the whole Internet
Improving Cloud Security Visibility with ChatOps - Lambda auto shuts it down

Manual changes should never be made through the AWS Console
Detecting Manual AWS Console Actions (CloudTrail) Arkadiy Tetelman

We should never use these <regions> or <cloud services>

- Instances in other regions or use of other services are red flags
- Can go further and do this per-app / service
- Netflix's Layered Approach to Reducing Risk of Cred Compromise

Enforce Invariants - Key Takeaways

What are things in your environment that should always or never be true?

- Cloud, security controls, code, AuthN/AuthZ, users, ...

Which of these can you programmatically enforce or alert on?

No context to make the decision -> No operational time for security team

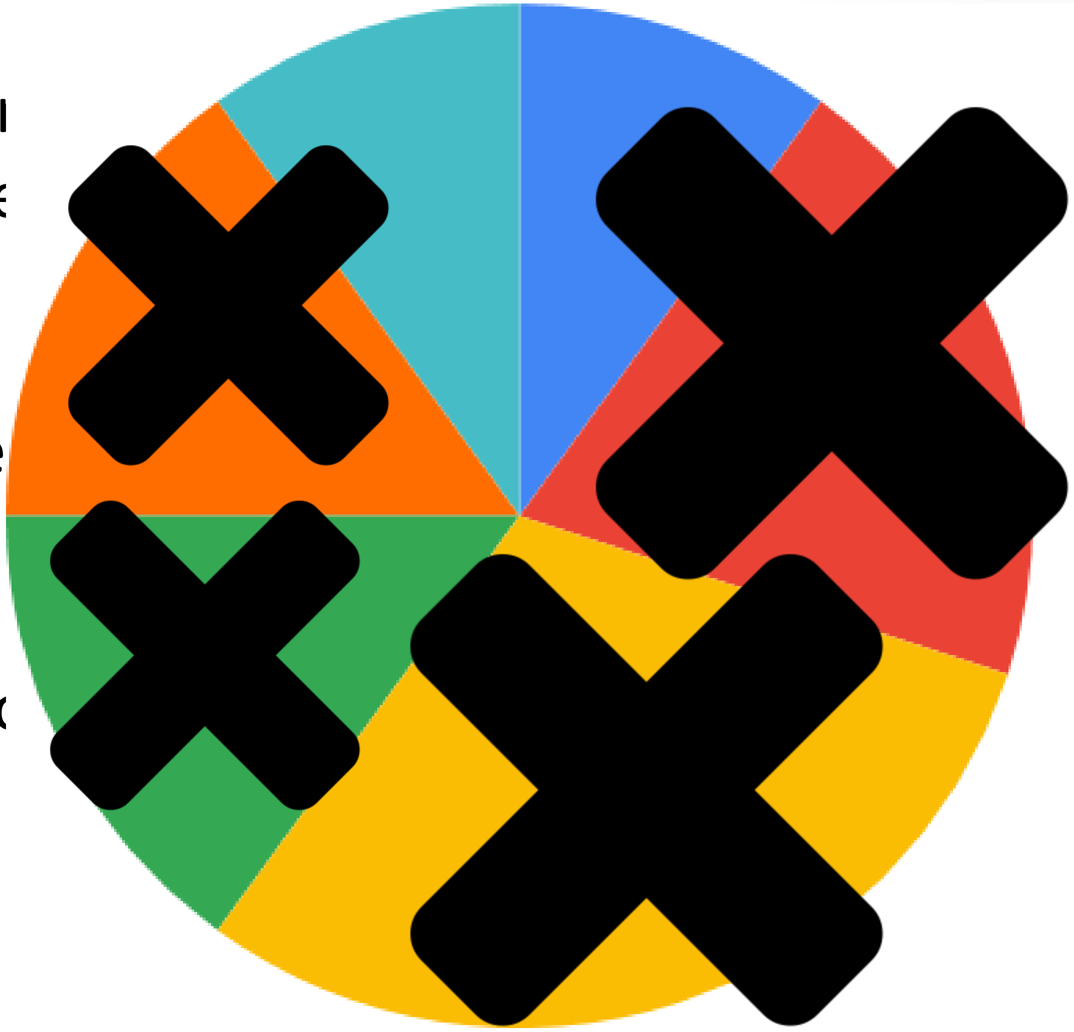
Enforce Invariants - Key Takeaways

What are thi ue?

- Cloud, se

Which of the

No context t am



- 🟦 Threat Modeling
- 🟥 Running security tools
- 🟨 XXE
- 🟩 Secrets in Code
- 🟧 Triaging bug bounty
- 🟦 Security training

How is what we're doing now making us ***more effective*** in the future?

If it's not, consider deprioritizing

Agenda

- Big Picture
  - Mindsets and Principles
  - Choosing How to Invest Your Time
- Scaling Your Company’s Security
  - The Fundamentals
  - Scaling Your Efforts
  - Security Endgame
- Action Plan

Action Plan: Apply

Next Week

3 – 9 Months

Future

Apply – Next Week – Assess

- Evaluate your fundamentals
  - Vulnerability Management, Continuous Scanning, Asset Inventory
- Brainstorm with security leadership and SMEs
  - What vulnerability and asset inventory info would we like?
  - Promising projects?

Apply – 3 to 9 Months – Build

- Nail the fundamentals
  - Build a solid foundation
- Do a bite-sized project
  - Based on historical vuln data and your company’s business factors / risk

Apply – Future – Scale

- Be more highly leveraged with your time (Target vuln classes)
- Invest in projects with high security ROI & minimal ongoing time requirements (Automating Least Priv, Invariants)
- Focus on areas that meaningfully raise your security bar

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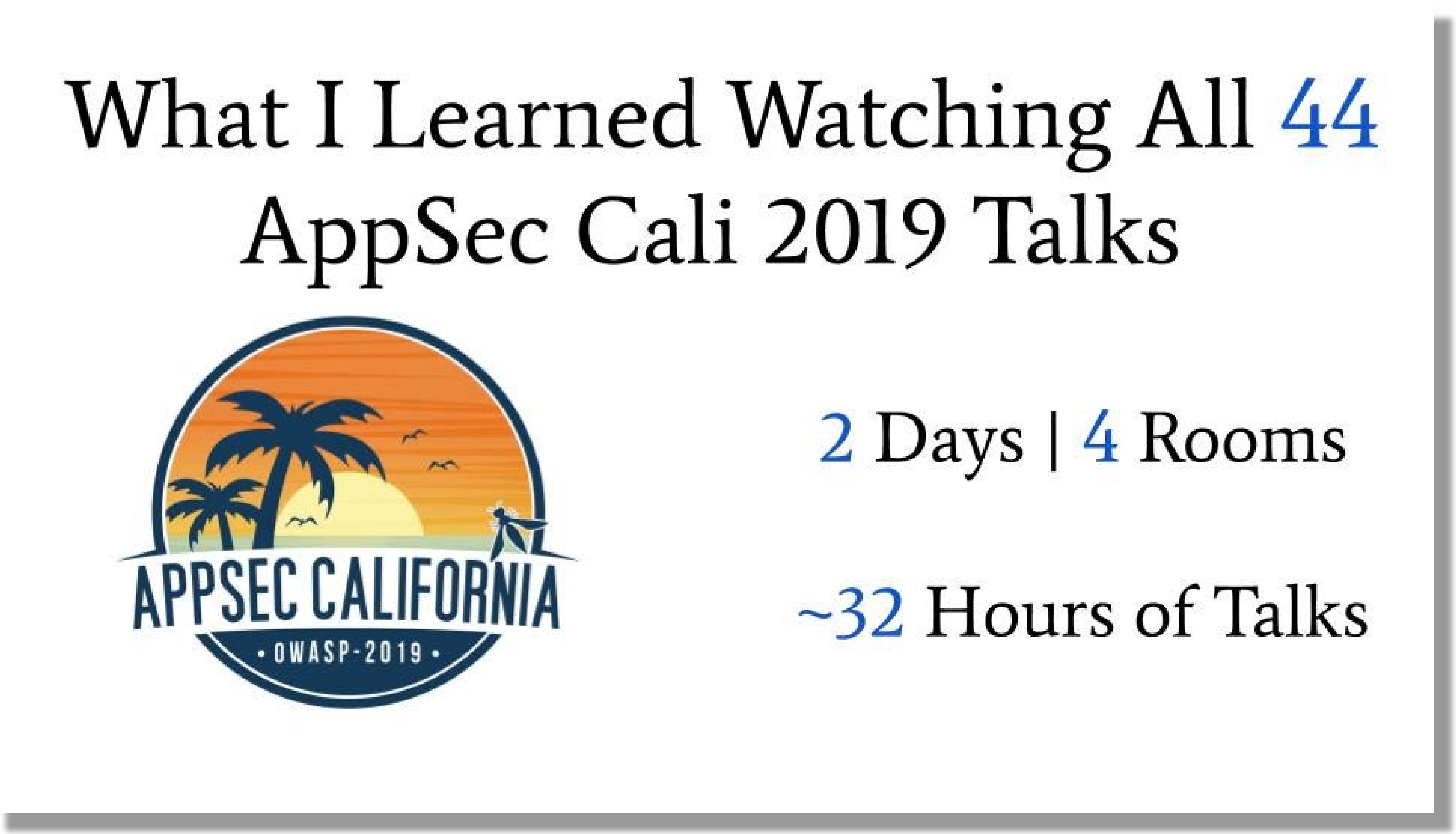
Wrapping Up

https://tldrsec.com/blog/appsec-cali-2019



What I Learned Watching All 44 AppSec Cali 2019 Talks

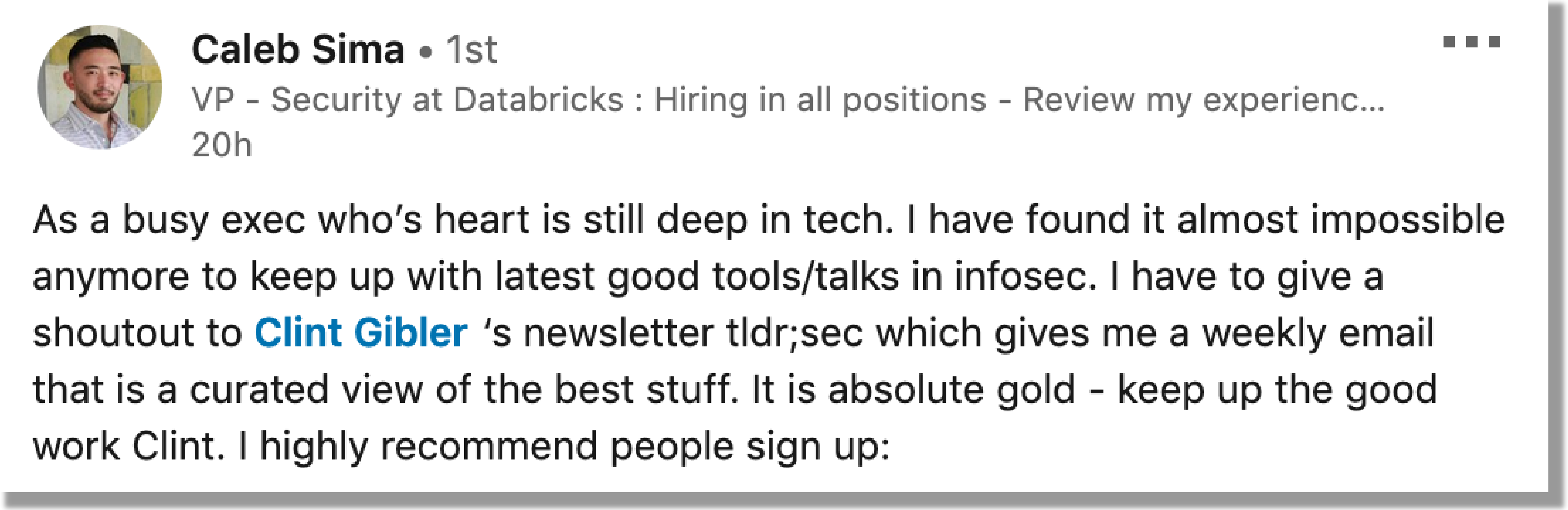
2 Days | 4 Rooms

~32 Hours of Talks

APPSEC CALIFORNIA
• OWASP-2019 •

Tl;dr sec Newsletter - https://tldrsec.com

- Talk summaries | Tools & Resources links | Original research



Caleb Sima • 1st

VP - Security at Databricks : Hiring in all positions - Review my experienc...

20h

As a busy exec who's heart is still deep in tech. I have found it almost impossible anymore to keep up with latest good tools/talks in infosec. I have to give a shoutout to Clint Gibler 's newsletter tldr;sec which gives me a weekly email that is a curated view of the best stuff. It is absolute gold - keep up the good work Clint. I highly recommend people sign up:

DevSecOps State of the Union

- Backup Slides: https://bit.ly/2020RSA_Gibler

@clintgibler

https://www.linkedin.com/in/clintgibler/

- **Uplevel** your security knowledge: https://tldrsec.com

Next Week
Assess

3-9 Months
Build

Future
Scale

- **Big Picture**: Mindsets & principles, using the right tool for the job
- **Fundamentals**: Vuln management, continuous scanning, asset inventory
- **Scaling Security**: Threat modeling, security engineering, detection & response
- **Security Endgame**: Automating least priv, targeting vuln classes, invariants

Thanks

- Big thanks to all of the people and companies behind the talks, blog posts, and tools referenced - you're pushing the industry forward!
- Special thanks to Barbara Schachner, Emil Vaagland, John Melton, Aladdin Almubayed, Julian Berton, Scott Behrens, Travis McPeak, Doug DePerry, Leif Dreizler, David Scrobonia, Marco Lancini, Chris Horn, and many others for feedback