

QUNIVERSE'24

# Securing your code with GitHub Advanced Security



Josh Johanning

DevOps Architect - FastTrack / GitHub

<https://josh-ops.com>

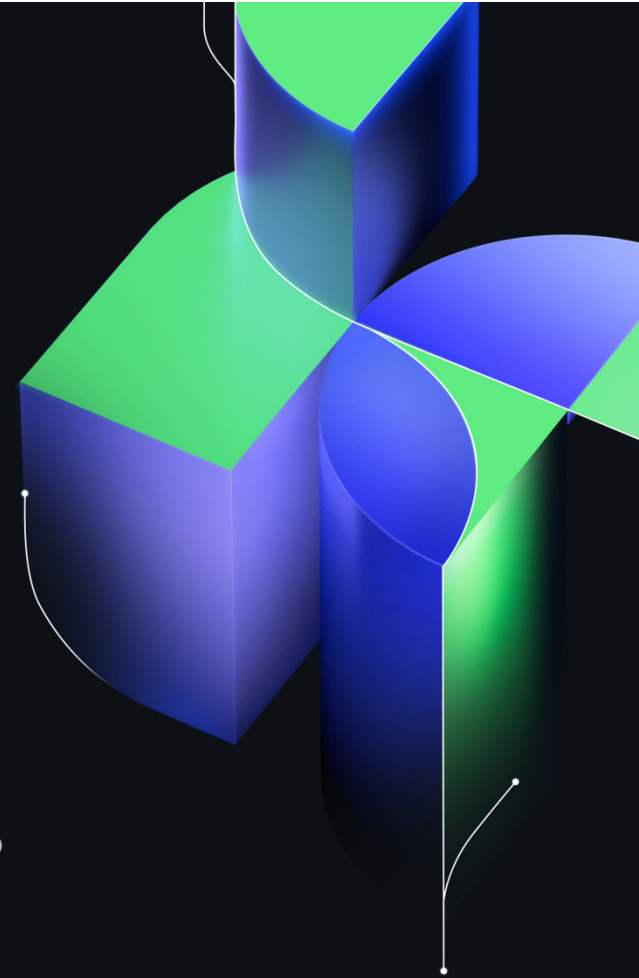


Mickey Gousset

DevOps Architect - FastTrack / GitHub

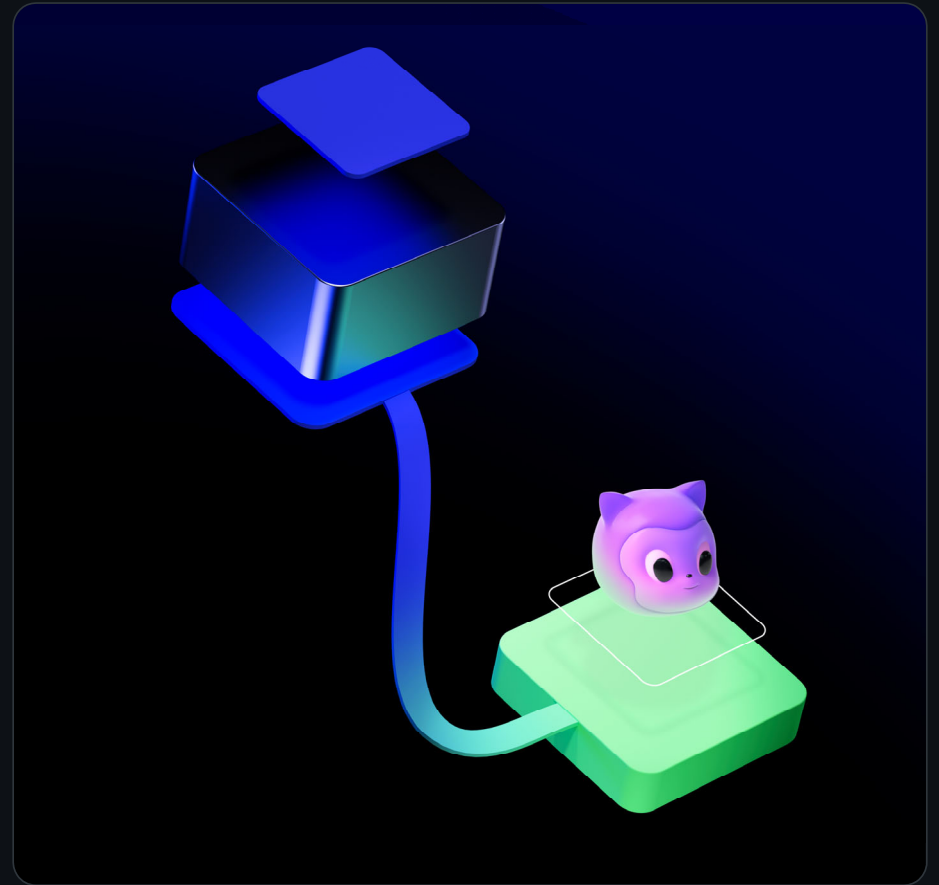
<https://youtube.com/mickeygousset>

<https://mickeygousset.com>



## Agenda

- 01 Overview (20m)**
- 02 Labs (55m)**
- 03 Certification Prep (15m)**



# AppSec today

## SECURITY RISKS

**Applications** are the #1 attack vector.

80% of breaches occur through web application exploits

Source: Verizon Data Breach Investigations Reports 2023

## STAGNANT PROCESS

**87% of found vulnerabilities** still exist after 9 months

Only 13% of vulnerabilities are discovered/remediated in the first 271 days

Source: Mend Open Source Risk Report 2022

## FORCE MULTIPLIER

**AI-powered security** offers greater ROI

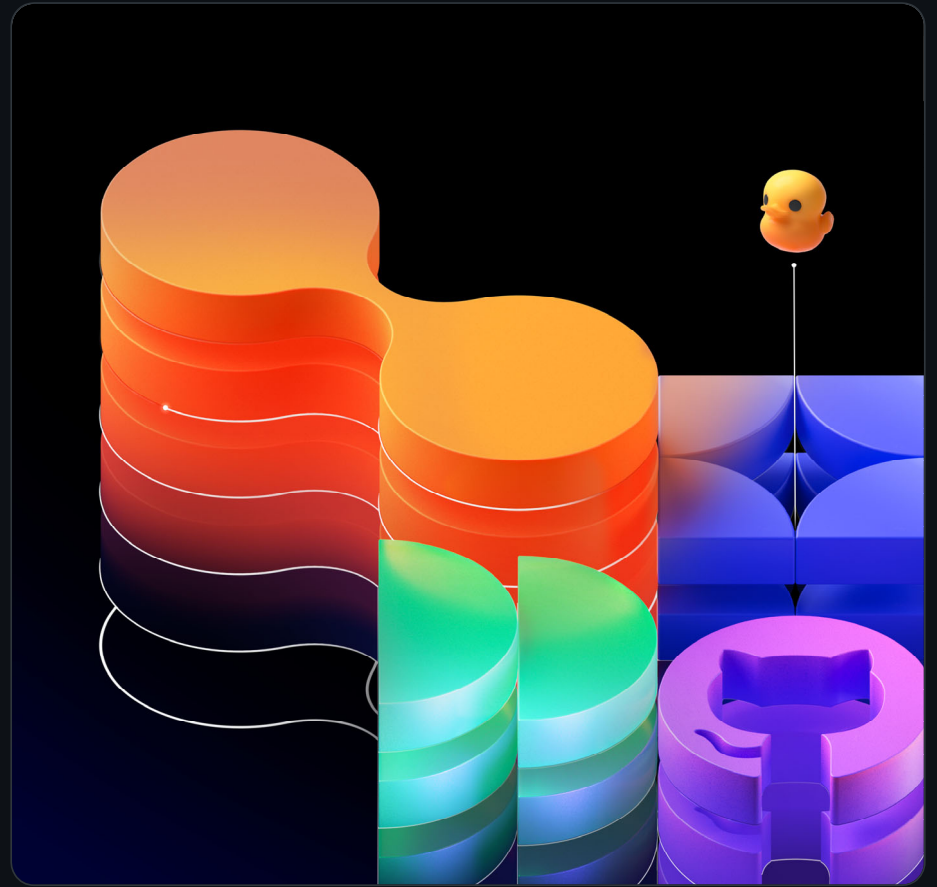
84% of executives plan to prioritize GenAI cybersecurity solutions

Source: IBM CEO's Guide to Generative AI, 2023

# Tech we will be using today

- Dependabot
- Secret Scanning (GHAS)
- Code Scanning (GHAS)
- Security Overview
- Copilot Autofix (GHAS)
- Security Campaigns (demo)

Ok, let's go secure  
some code!



(currently incomplete)

# We have lots of labs for you

1. GitHub Advanced Security Feature Introduction
2. Reviewing/Managing Security Alerts
3. Block insecure code from being merged / Copilot Autofix
4. Block vulnerable dependencies from being merged
5. Block secrets from being pushed to GitHub
6. Working with Security Overview

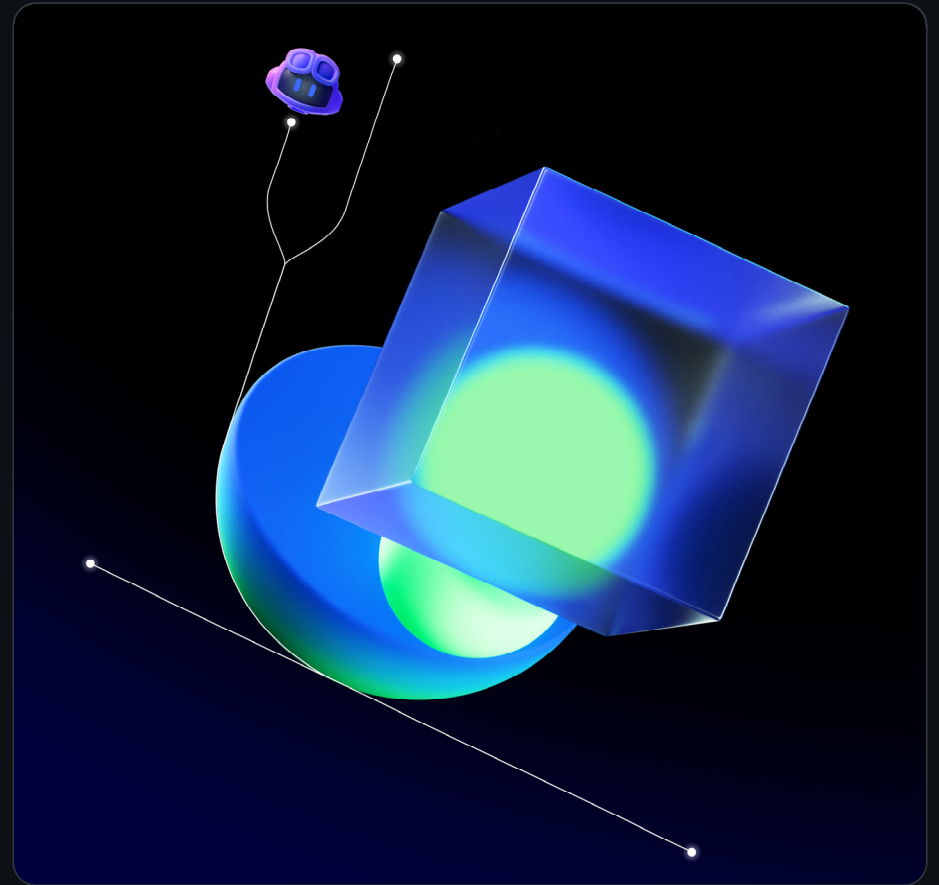
# Accessing The Labs

<https://gh.io/ghas-workshop>

- Enter the given email address: **@octohol.com**
- Enter the given password: **XXXX-XXXX-XXXX-XXXX**
- Click **“Use This Template”**
- Name your repository: **USERNAME-juice-shop-ghas-workshop**
- Repository owner should be the organization: **ghuwsec1953**
- Review the README to get started with the labs

**Did You Know:**

**GitHub has  
certifications!**





**Get Certified At Universe!**

# Five, to be exact

- GitHub Foundations
- GitHub Actions
- GitHub Advanced Security
- GitHub Administration
- GitHub Copilot

(NEED TO MAKE THIS PRETTIER)

# Helpful GHAS Certification Links

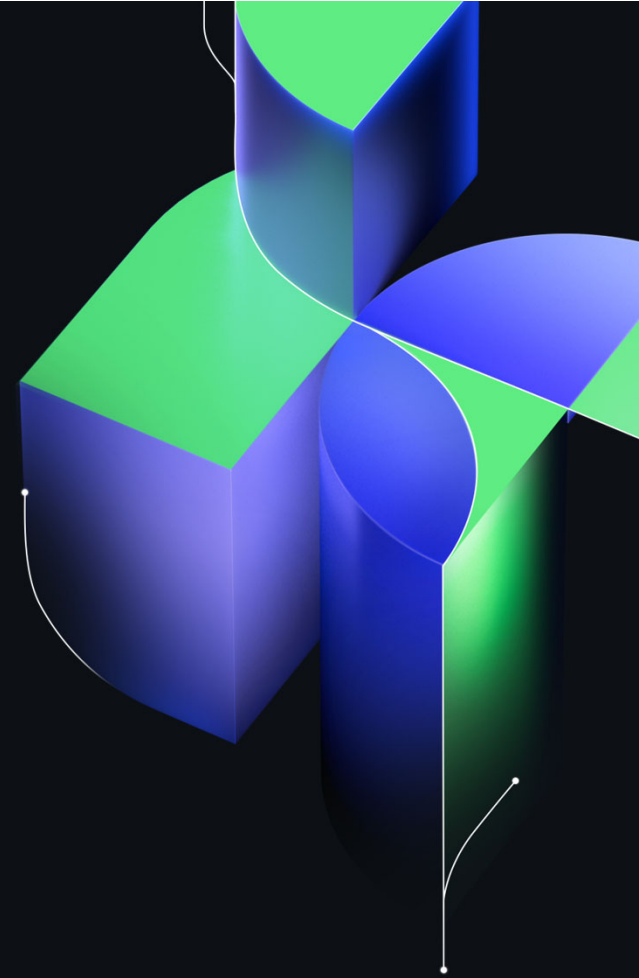
- <https://docs.github.com/en/get-started/showcase-your-expertise-with-github-certifications/about-github-certifications#github-advanced-security-certification>
- <https://examregistration.github.com/certification/GHAS>
- Study Guide - [https://assets.ctfassets.net/wfutmusr1t3h/4WQrNeENScZlISZKdKnVbK/fa664e4ba61056df9194331de18aec0b/github-advanced-security-exam-preparation-study-guide\\_4.pdf](https://assets.ctfassets.net/wfutmusr1t3h/4WQrNeENScZlISZKdKnVbK/fa664e4ba61056df9194331de18aec0b/github-advanced-security-exam-preparation-study-guide_4.pdf)
- Microsoft Learning Path for GHAS - <https://learn.microsoft.com/en-us/collections/rqymc6yw8q5rey>
- LinkedIn Learning Cert Course - <https://www.linkedin.com/learning/github-advanced-security-cert-prep-by-microsoft-press>

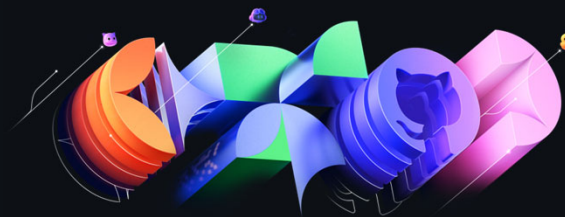
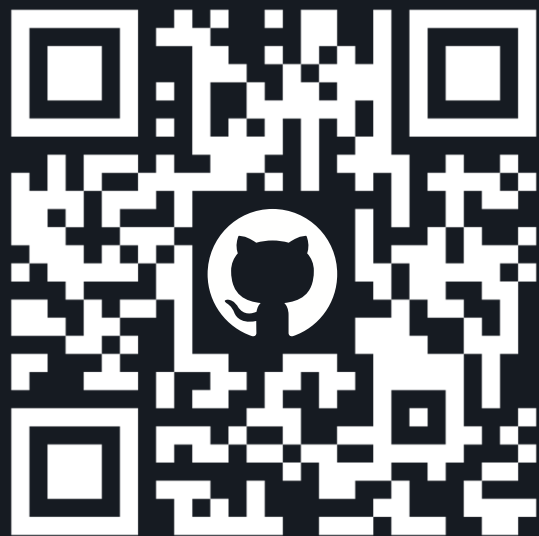
(And we covered a lot of this today!)

# Objective Domains

Domain Breakdown	Exam Percentages
Domain 1: Describe the GHAS security features and functionality	10%
Domain 2: Configure and use secret scanning	10%
Domain 3: Configure and use dependency management	15%
Domain 4: Configure and use code scanning	15%
Domain 5: Use code scanning with CodeQL	20%
Domain 6: Describe GitHub Advanced Security best practices	20%
Domain 7: Configure GitHub Advanced Security tools in GitHub Enterprise	10%

# Thank you!





# We want to hear from you!

Take the session survey by visiting the attendee portal so we can continue to make your Universe experience cosmic!