



# GitHub appsec

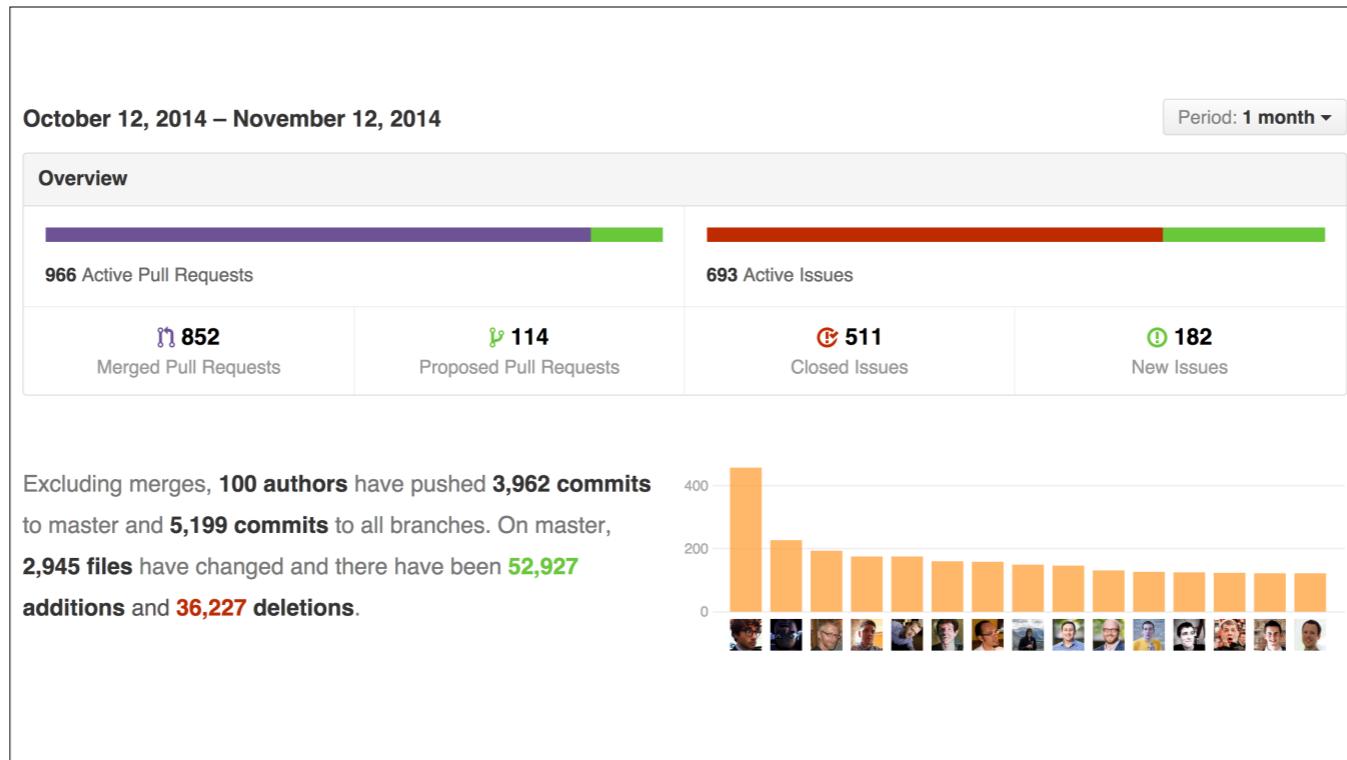
- Started 2 years ago
  - had fun pwning shit for a month
  - doesn't scale



Ben Toews



- GitHub writes lots of code
- Culture of shipping



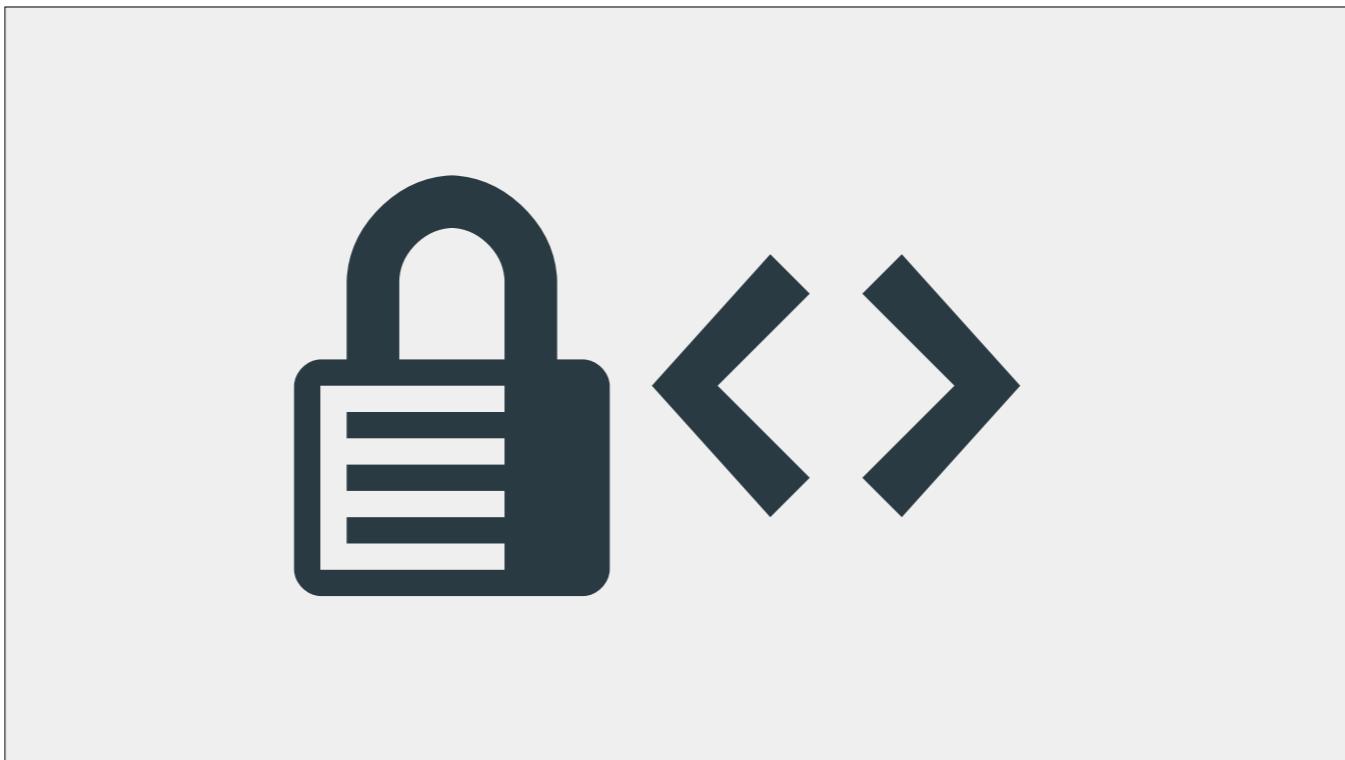
- That's just github/github though
- Across all repos
  - 23089 commits
  - 3607 pulls

stats as of 2014/11/11



- GitHub culture is very opposed to friction
- Can't stop people's work for security

<https://www.flickr.com/photos/j-maxx/10312338993/>



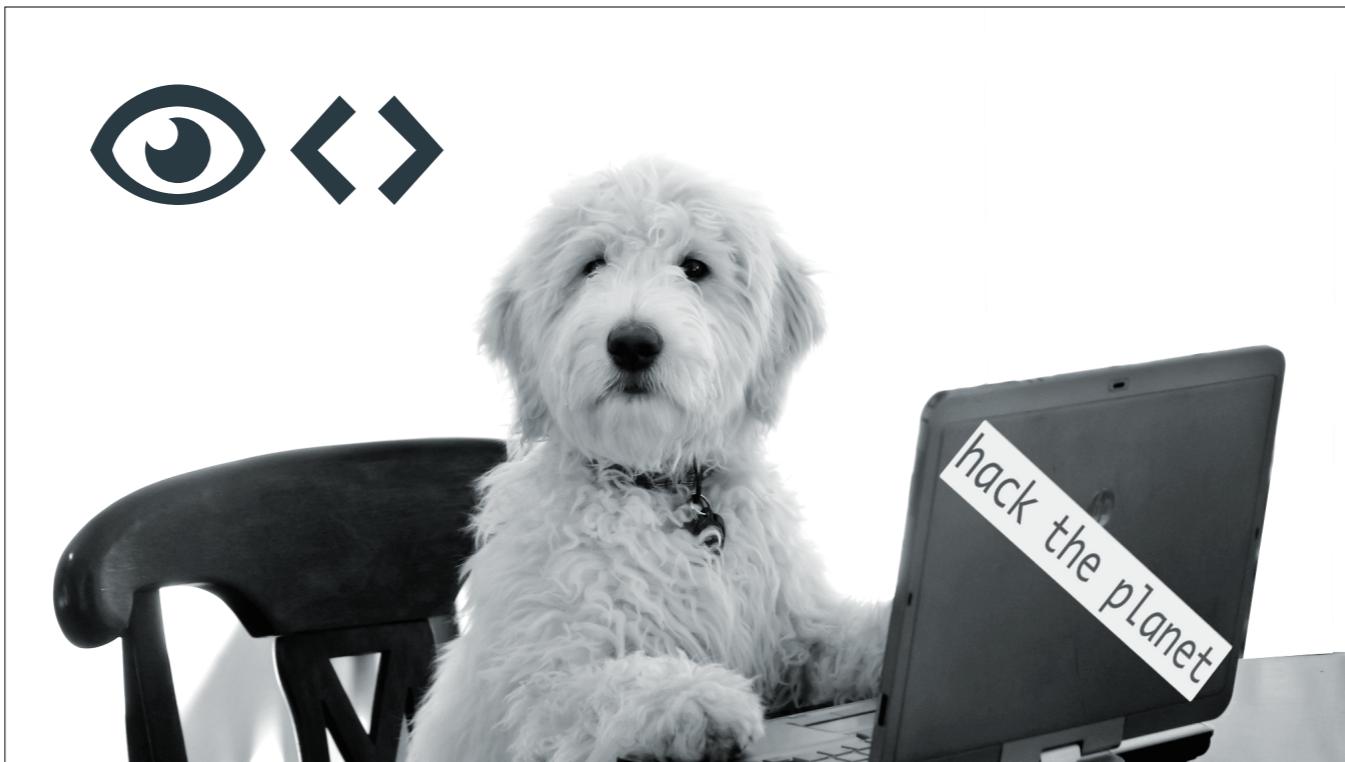
- With those limitations in place, how do we do appsec?



good dev

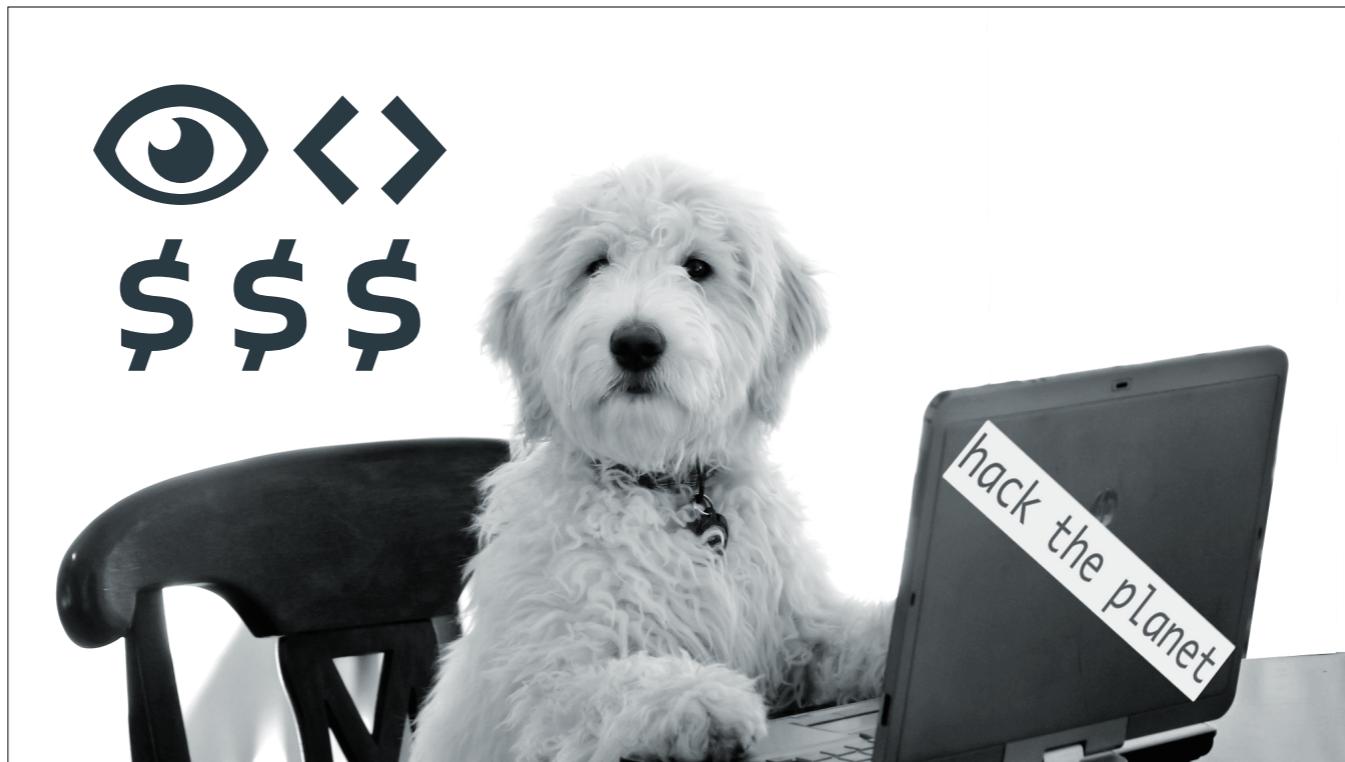
- We start out with the best developers
  - Senior people
  - We treat them like adults
- Always had a culture of security
  - Leadership cares about security
  - Devs care about security
- We build a culture of trust
  - We encourage questions and CCs
  - No formal developer training
    - We write docs
  - We defer to devs where they're the experts
    - We aren't afraid of saying "we don't know"

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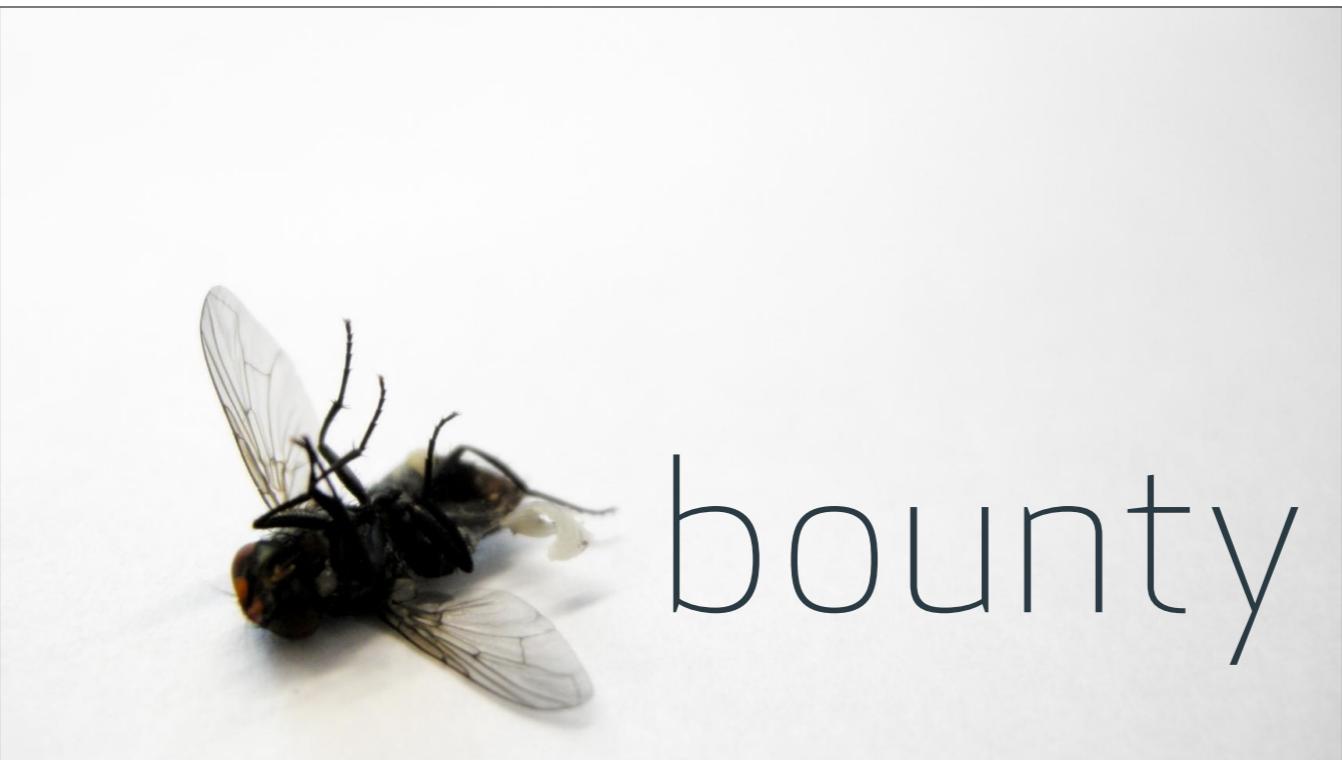
- Manual code review
  - People ask us for review
  - Production readiness reviews
  - Things flagged by static analysis

<https://www.flickr.com/photos/revamptramp/7418429900>



- Consultants
  - Helps to scale manual review
  - Why do it yourself when you can pay someone else 10x to do a worse job
  - Seriously though, fresh eyes are good
  - Can hire experts (Golang) for small jobs

<https://www.flickr.com/photos/revamptramp/7418429900>



- Bounty Program
  - January 30, 2014

<https://www.flickr.com/photos/sergioavatara/3415238118>

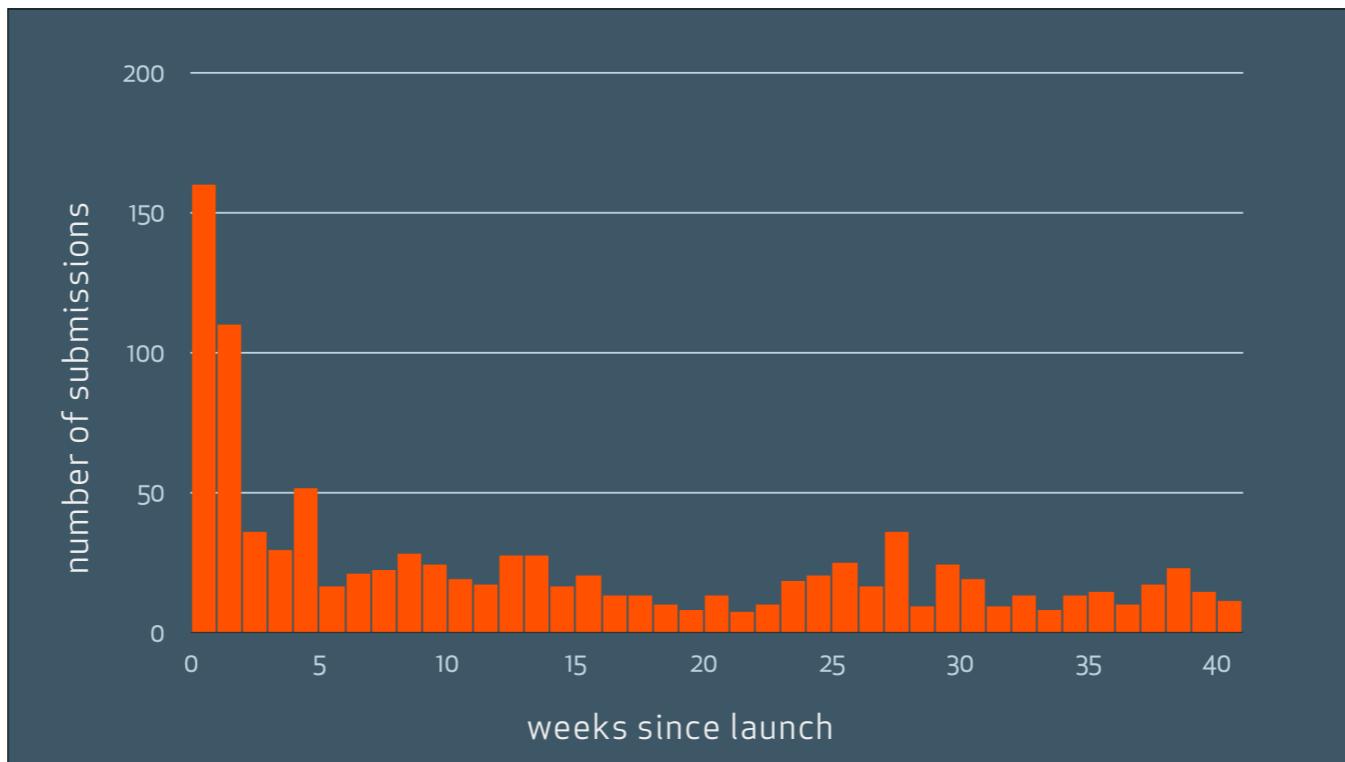
1605 submissions  
9 months  
51 paid  
\$46,900



- Bounty Program
  - January 30, 2014 - 9.3 months
  - ~600 flagged as spam

stats as of 2014/11/11

<https://www.flickr.com/photos/sergioavatara/3415238118>



- 2 weeks of hell
- \*totally\* worth it

they're coming...



- Robots will inherit the earth
- Static analysis
- Sentinel
  - Brakeman
  - Regexes
  - Push hooks
  - Diffed between commits
  - Inline diff comments

<http://www.famouscutouts.com/images/detailed/1/952-K-9.jpg>



- Demo sentinel diff comments

<http://www.famouscutouts.com/images/detailed/1/952-K-9.jpg>



security is hard

- Review
  - good devs
  - manual review
  - static analysis
  - bug bounty
- Decent coverage



@mastahyeti

- Thanks