

# Vibe Code Survival Guide for Open- Source Projects

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# Me - Vadim Bauer

- Software Engineer
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- Maintaining CNCF Harbor
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# Agenda

- ★ What is the reality at Project Harbor
- ★ Value proposition of open source
- ★ Agentic engineering disrupting open source
- ★ The new value proposition of open source
- ★ Coping strategies
- ★ Strategies for Project Harbor
- ★ Closing thoughts



# Survival Guide?



**"Survival"** carries the wrong  
psychological baggage.



# **Adoption**, not Survival



# Project Harbor





**Harbor** is a CNCF graduated open-source container registry to store and manage container images and other OCI artifacts securely with policies, role-based access control, vulnerability scans and signing.

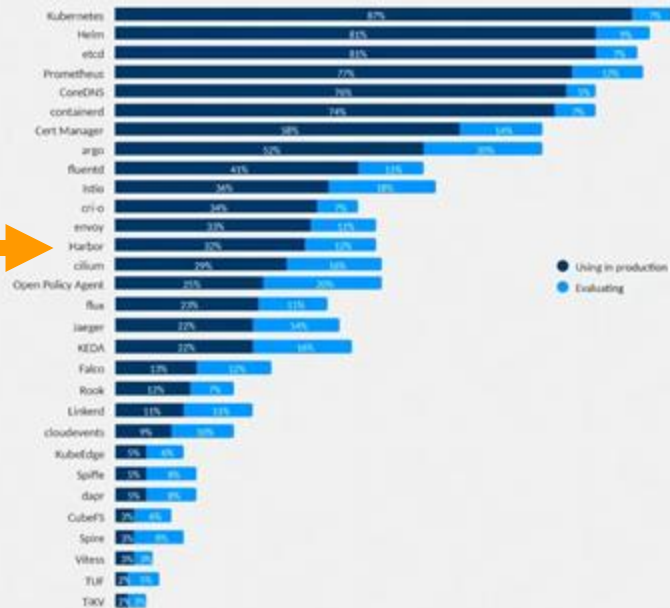




FIGURE 19

### CNCF GRADUATED PROJECTS

Which of these graduated CNCF projects is your organization using in production or evaluating? (select one response)



2025 CNCF Annual Survey, Q32, Sample size = 395-596, DIONS excluded



# Reality at Project Harbor

Filters 

Labels 20

Milestones 0

New pull request

<input type="checkbox"/>	88 Open	✓ 534 Closed	Author	Label	Projects	Milestones	Reviews	Assignee	Sort
<input type="checkbox"/>	<a href="#">Fix/tui selection cancel state</a> ✕		#948 opened 1 hour ago by ramohardewaj	First-time contributor	👤 1 of 5 tasks		🗨️ 1		
<input type="checkbox"/>	<a href="#">Fix/page size zero fetch all</a> ✕		#946 opened 1 hour ago by ramohardewaj	First-time contributor	👤 1 of 5 tasks		🗨️ 1		
<input type="checkbox"/>	<a href="#">fix(login): support --password-stdin for piped input</a> ✓		#944 opened 4 hours ago by ramohardewaj	First-time contributor	👤 1 of 5 tasks		🗨️ 1		
<input type="checkbox"/>	<a href="#">fix(login): avoid false login failures for robot accounts</a> ✓		#942 opened yesterday by SeeyiVhora	First-time contributor			🗨️ 1		
<input type="checkbox"/>	<a href="#">fix(replication): support positional log arguments</a> ✓		#940 opened yesterday by ramohardewaj	First-time contributor	👤 1 of 5 tasks		🗨️ 1		
<input type="checkbox"/>	<a href="#">fix(webhook): reject unsupported endpoint URL schemes</a> ✓		#938 opened yesterday by ramohardewaj	First-time contributor	👤 1 of 5 tasks		🗨️ 1		
<input type="checkbox"/>	<a href="#">[Draft/PoC] Architecture for async loadingtablelist (via jobservice)</a> ✓		#936 opened 2 days ago by SuperCoolmool	First-time contributor	- Draft				
<input type="checkbox"/>	<a href="#">docs: correct outdated fallback keyring path documentation</a> ✓		#935 opened 3 days ago by CymusMaximilian	First-time contributor			🗨️ 1		
<input type="checkbox"/>	<a href="#">fix(replication): propagate interactive prompt errors to prevent abrupt CLI crashes</a> ✕		#932 opened 3 days ago by gcharpe1004	Contributor	👤 1 of 5 tasks		🗨️ 1		🗨️ 1
<input type="checkbox"/>	<a href="#">fix(config): prevent silent success on empty configs and fix context switch error propagation</a> ✕		#930 opened 4 days ago by gcharpe1004	Contributor	👤 1 of 5 tasks		🗨️ 1		🗨️ 1
<input type="checkbox"/>	<a href="#">fix: handle GetRobot error in robot create and update output path to prevent nil panic</a> ✓		#928 opened 4 days ago by AdeshDehmal	First-time contributor	👤 8 tasks done		🗨️ 1		🗨️ 1
<input type="checkbox"/>	<a href="#">feat: project preheat task</a> ✕		#926 opened 5 days ago by Sypher845	Contributor	- Draft	👤 1 of 5 tasks			🗨️ 1
<input type="checkbox"/>	<a href="#">feat: project preheat execution</a> ✕		#925 opened 5 days ago by Sypher845	Contributor	- Draft	👤 1 of 5 tasks			🗨️ 1
<input type="checkbox"/>	<a href="#">fixduplicate tag immutable registered</a> ✓		#924 opened 5 days ago by NishchayRajput	First-time contributor	👤 1 of 5 tasks		🗨️ 1		🗨️ 3
<input type="checkbox"/>	<a href="#">build(deps): bump golang.org/x/term from 0.42.0 to 0.43.0</a> ✓ <a href="#">dependencies</a> <a href="#">PR</a>		#921 opened last week by dependabot	Bot					
<input type="checkbox"/>	<a href="#">build(deps): bump golang.org/x/text from 0.36.0 to 0.37.0</a> ✓ <a href="#">dependencies</a> <a href="#">PR</a>		#920 opened last week by dependabot	Bot					
<input type="checkbox"/>	<a href="#">build(deps): bump github.com/sahilm/fuzzy from 0.1.1 to 0.1.2</a> ✓ <a href="#">dependencies</a> <a href="#">PR</a>		#919 opened last week by dependabot	Bot					

is:issue state:open



Labels

Milestones

New Issue

 **Open** **82** **Closed** **242**

 Author ▾ Labels ▾ Projects ▾ Milestones ▾ Assignees ▾ Types ▾ F1 Newest ▾
 

- [bug]: TUI selection cancel returns empty or zero-value choice instead of aborting** 🔍 1  
 #947 · rambhardwaj opened 1 hour ago
- [bug]: --page-size 0 does not fetch all results for some list commands** 🔍 1  
 #945 · rambhardwaj opened 1 hour ago
- [bug]: support --password-stdin for piped input and preserve whitespace** 🔍 1  
 #943 · rambhardwaj opened 4 hours ago
- fix(login): avoid false login failures for robot accounts** 🔍 1  
 #941 · SeeyalFlora opened yesterday
- [bug]: replication log rejects advertised positional execution and task IDs** 🔍 1  
 #939 · rambhardwaj opened yesterday
- [bug]: Webhook endpoint URL validation accepts unsupported schemes like ftp://** 🔍 1  
 #937 · rambhardwaj opened yesterday
- docs: correct outdated fallback keyring path documentation in encryption guide** 🔍 1  
 #934 · CygnusMaximilian opened 3 days ago
- GetRegistryIdByName returns (0, nil) for non-existent registry; callers delete or operate on ID 0** 🔍 1  
 #933 · sahu-virendra-1908 opened 3 days ago
- [bug]: Replication prompts use log.Fatal causing abrupt CLI crashes on API errors** 🔍 1  
 #931 · gcharpe1604 opened 3 days ago
- [bug]: Silent success on empty configurations and improper context switch error propagation** 🔍 1  
 #929 · gcharpe1604 opened 4 days ago
- bug: GetRobot error discarded in robot create and update output path causing nil pointer panic** 🔍 1  
 #927 · AdeshDeshmukh opened 4 days ago
- [bug]: Duplicate Immutable Tag in 'harbor tag'** 🔍 1  
 #923 · NishchayRajput opened 5 days ago
- [bug]: "login failed: unauthorized"** 🔍 1  
 #922 · shodanwasthere opened last week
- [discussion]: harbor user delete interactive flow shows no prompt** 🔍 1  
 #921 · shodanwasthere opened last week

Filters 

Labels 31

Milestones 0

New pull request

<input type="checkbox"/>	66 Open	✓ 187 Closed	Author	Label	Projects	Milestones	Reviews	Assignee	Sort
<input type="checkbox"/>	<b>feat(ground-control): complete OpenAPI spec with satellite, group, and config endpoints</b> ✗		documentation				1		12
	golang #451 opened yesterday by ashimrai123 · First-time contributor								
<input type="checkbox"/>	<b>fix: add startup jitter to scheduler to prevent thundering herd on fleet restart</b> ✓		golang				1		4
	#450 opened yesterday by bhuvan-somisetty · First-time contributor · 3 tasks done								
<input type="checkbox"/>	<b>optimising ground-control satellite state reconciliation by centralis...</b> ✓		golang				1		7
	#449 opened yesterday by devlopharsh · First-time contributor								
<input type="checkbox"/>	<b>feat: add audit logging for security events</b> ✓		compliance	component:ground-control	component:satellite		1		19
	documentation enhancement golang security #448 opened yesterday by Alou-iKram · Member								
<input type="checkbox"/>	<b>test: add unit tests for ground-control/internal/server/handleResponse.go</b> ✓		golang				1		4
	#446 opened 2 days ago by manoj-1407 · First-time contributor								
<input type="checkbox"/>	<b>fix(ground-control): validate Harbor project existence during group sync</b> ✓		golang				1		6
	#443 opened 2 days ago by ashimrai123 · First-time contributor								
<input type="checkbox"/>	<b>fix: retry direct delivery for tarballs absent from digest map</b> ✓		golang						5
	#441 opened 3 days ago by bhuvan-somisetty · First-time contributor · 3 tasks done								
<input type="checkbox"/>	<b>docs(satellite): add missing HARBOR_REGISTRY_URL to env example, quickstart, and...</b> ✓		documentation				1		2
	#440 opened 3 days ago by ashimrai123 · First-time contributor								
<input type="checkbox"/>	<b>docs(ground-control): add ADMIN_PASSWORD to env example, compose, and quickstart</b> ✓		documentation				1		7
	#438 opened 3 days ago by ashimrai123 · First-time contributor								
<input type="checkbox"/>	<b>fix: continue replication on per-image failure instead of aborting group</b> ✓		golang				1		2
	#435 opened 4 days ago by bhuvan-somisetty · First-time contributor								
<input type="checkbox"/>	<b>feat: setup codecov integration for test coverage report</b> ✓						1		11
	#431 opened last week by JetsHree · First-time contributor · Approved								
<input type="checkbox"/>	<b>fix: read satellite and group from request body in removeSatelliteFromGroup</b> ✓		golang						2
	#430 opened last week by ashimrai123 · First-time contributor								
<input type="checkbox"/>	<b>fix: validate inputs in ConstructHarborDeleteURL to prevent malformed URLs</b> ✓		golang				1		5
	#429 opened last week by bhuvan-somisetty · First-time contributor								

Filters 

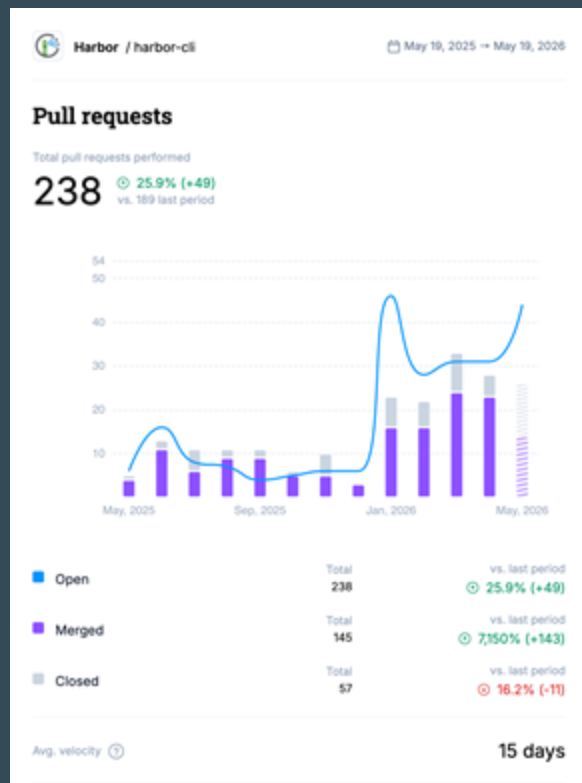
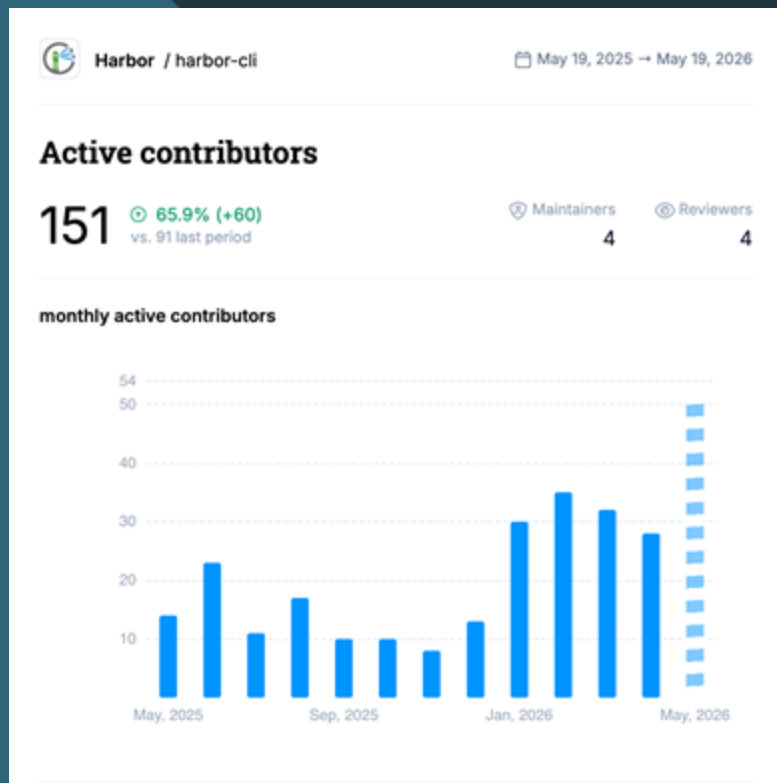
Labels 388

Milestones 0

New pull request

<input type="checkbox"/>	161 Open	10,238 Closed	Author	Label	Projects	Milestones	Reviews	Assignee	Sort
<input type="checkbox"/>	<b>[CHERRY-PICK] feat: replace redis with valkey as cache backend (#23157)</b>	<b>release-note/update</b>	<b>target/2.16.2</b>						1
	#23281 opened 23 minutes ago by chims · Member · Review required · 0 tasks done								
<input type="checkbox"/>	<b>Feat: Add Telegram notification handler</b>	<b>X</b>							
	#23260 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>Feat: Add Microsoft Teams notification handler</b>	<b>X</b>							
	#23259 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>Feat: Add Matrix notification handler</b>	<b>X</b>							
	#23258 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>Feat: Add Email notification handler</b>	<b>X</b>							
	#23257 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>Feat: Add Discord notification handler</b>	<b>X</b>							
	#23256 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>Feat: Add AMQP notification handler</b>	<b>X</b>							
	#23255 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>Fix: Slack notification handler timestamp formatting</b>	<b>X</b>							
	#23254 opened 1 hour ago by rossignol · First-time contributor · Draft								
<input type="checkbox"/>	<b>chore(deps-dev): bump webpack-dev-server from 4.15.2 to 5.2.4 in /src/portal/app-swagger-ui</b>	<b>dependencies</b>	<b>security</b>						
	#23251 opened 12 hours ago by dependabot · Bot · Review required								
<input type="checkbox"/>	<b>(chore): audit log trace for project visibility update (public/private)</b>	<b>✓</b>							2
	#23246 opened 2 days ago by 10shidm7 · First-time contributor · Review required · 4 of 5 tasks								
<input type="checkbox"/>	<b>(chore): dockerfile base to refresh Photon packages instead of updating photon image</b>	<b>✓</b>							4
	#23245 opened 4 days ago by 10shidm7 · First-time contributor · Review required · 4 of 5 tasks								
<input type="checkbox"/>	<b>fix: enable EPEL repository for valkey installation for arm64</b>	<b>✓</b>	<b>release-note/update</b>						1
	#23238 opened 5 days ago by danacr · First-time contributor · Review required								
<input type="checkbox"/>	<b>Proxy the referrer API to upstream registry with paging and local merge</b>	<b>X</b>	<b>release-note/new-feature</b>	<b>target/2.16.0</b>					1
	#23237 opened 5 days ago by stonardj · Member · Review required · 5 tasks								
<input type="checkbox"/>	<b>fix: duplicated "by" in beego ORM TableName comments</b>	<b>✓</b>	<b>release-note/update</b>						3
	#23234 opened 5 days ago by vip892766gma · First-time contributor · Approved								
<input type="checkbox"/>	<b>allow users to further configure Nginx (goharbor/proxy)</b>	<b>✓</b>	<b>release-note/update</b>						1
	#23233 opened 5 days ago by macro · First-time contributor · Review required · 3 of 5 tasks								
<input type="checkbox"/>	<b>add portal check keep package-lock.json consistent</b>	<b>✓</b>	<b>release-note/update</b>						2
	#23232 opened 5 days ago by MiaoYang · Member · Review required · 5 tasks								
<input type="checkbox"/>	<b>fix: block pull of unsupported artifacts when vulnerability prevention is on</b>	<b>✓</b>							1
	#23231 opened 5 days ago by jichu · First-time contributor · Review required								
<input type="checkbox"/>	<b>feat(audit): add member create/update/delete audit events</b>	<b>✓</b>	<b>release-note/new-feature</b>						8
	#23228 opened last week by Maurice · First-time contributor · Review required · 5 tasks done								

# Stats





# About Harbor





# What Changed

- ★ 1-2 New Issues per Day → 5-10 Issues per Day
- ★ 1-2 external PRs per month → 1-2 PRs per day
- ★ 1-5 vulnerability disclosure reports per year → 1-5 reports per week
  
- ★ Difficult to distinguish between signal vs. noise
  - Agentic PRs and issues reports look mostly good
  - Actually, more time is needed per PR and issue



# Value Proposition of Open Source



# Value Proposition of Open Source

- ★ Shared engineering economics
  - Cost amortized across contributors
- ★ Distribution and adoption
  - Free download as the perfect go-to-market
- ★ Trust through transparency
  - Auditable code, no vendor lock-in
- ★ Community as moat
  - contributors, governance, ecosystem gravity



# Shift Value Proposition of Open Source

- \* Authorship → Maintainership
  - Becomes the scarce asset
- \* Write capacity → Review capacity
  - Constraint.
- \* "free labor + free distribution" → "neutral substrate + provenance + governance".
- \* Moves up the stack
  - Trust
  - Curation
  - Human judgment



# Shift Value Proposition of Open Source

- ★ Abundance of Code
  - Forks become trivial
- ★ “Forking, once a “declaration of war” in open source, becomes an everyday act when AI makes maintenance trivial” – Steve Yegge
- ★ Importance of stewardship becomes more important for open source.
  - LF, CNCF, Eclipse and other foundations



# Coping Strategies in the Wild



# Strategies with Agentic Contributions

- ★ Ban AI PRs
- ★ Expose AI generated PRs
- ★ Disable PRs
- ★ Ignore New Reality
- ★ Guidelines/Rules
  - Ban bad actors and PRs



# What We Should Do Instead



# Leverage and Shift

- \* Guidelines and rules for humans and AI
- \* Closing the loop
  - Tests
  - Low and High Level (against roadmap, project scope etc.)
- \* Clear roadmap
- \* Clear and narrow project scope
- \* Maintainer Onboarding
  - Maintainer  $\neq$  Code writer
- \* Knowledge Transfer



# Different Types of Knowledge

TYPE OF KNOWLEDGE	DEFINITION	WAYS OF CAPTURING	EXAMPLE
Explicit Knowledge	Knowledge that is easily articulated, codified, and shared	<ul style="list-style-type: none"><li>• Documents Databases </li><li>• Manuals </li><li>• Procedures</li></ul>	Training and sharing best practices 
Implicit Knowledge	Knowledge that is gained through experience and is often difficult to articulate	<ul style="list-style-type: none"><li>• Observation </li><li>• Experience </li><li>• Mentorship </li></ul>	Performing tasks and solving problems creatively 
Tacit Knowledge	Knowledge that is deeply ingrained based on personal experience, beliefs, and values	<ul style="list-style-type: none"><li>• Storytelling </li><li>• Communities of practice </li><li>• Knowledge sharing platforms</li></ul>	Initiating innovation and building relationships 



# Challenges

- ★ Most developers only want code
- ★ Communication and collaboration become key
  - Key competency of developers
- ★ We need a new generation/mindset of open-source maintainers



# Strategies for Project Harbor



# PRs & Issues

- ★ We can't cope with that many PRs/Issues
  - Ignore
  - Rules and Guidelines
    - Code
    - Authorship
  - Enforcing Rules
  - Automation with agents



# Contributions

- ★ Show me your prompt, and I'll tell you who you are
  - No need for (feature) PRs
- ★ “I read the prompts more than I read the code because this gives me more idea about the output” — Peter Steinberger
- ★ Expose business requirements
  - Not feature requests
  - Community engagement



# Contributors

- ★ Treat Contributor as Maintainer
  - The team contributes with the same knowledge as the maintainer
  - Delegate work to maintainers
- ★ Make the project easy to fork
  - Easy fork maintenance
  - Local development, testing,



# Architectural Changes

- ★ Make code easier to maintain
  - For agentic workflows
- ★ Extension points, plugin interfaces
  - Reduce PRs and feature requests
- ★ Back channel to maintainers & project
  - Metrics, usage, bug report assembly
- ★ Smaller attack surface
  - Fewer 3rd party dependencies



# Action Items for Project Harbor

- \* Feature Flags
  - Release potentially unstable features behind feature flags
- \* Treat users to testers
  - Sandbox features
  - Stable core, loose surroundings
- \* Easy maintainer onboarding
  - Maintainership for subcomponents
- \* Architectural Changes of Software



# Closing Thoughts

