How to Ship 1000+ Commits to a Rails Monolith Daily

Hana Harencarova Software Developer at GitHub @hharen



Number guessing game

200+ 500/2'500

8

18 1752

Number guessing game

- **8** Lowest number of commits last year, on 25th of December 2024
- 18 deploys groups yesterday (11th of December)
- 30 max PRs in a merge group
- 200+ CI checks
- 1752 highest number of commits per day in monolith in first half a year of 2025, 26th of March
- 500/2,500 500 engineers merge 2,500 pull requests monthly (number from a year ago)



Hi, I'm Hana







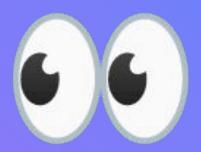
??? My questions for you

Shipping fast is not magic it's process, culture, and tooling

What you'll hear today

- 1. Small changes for fast deploys
- 2. Testing
- 3. Deploys
- 4. How we shipped Autofix API

Make changes easy to review



Make changes easy to review

- 1. Ship small PRs
- Add print screen/screen recordings of changes
- 3. Good PR description
- 4. Review your own PR

Ship small



Feature flags



Local Testing & Review Lab

Local tests (Codespaces)

- Unit and integration tests
- Running Rails server to do manual testing

Review lab aka branch deployments

- Deploy of a specific branch
- Unique URL
- Connected to production database
- Enables testing with real data
- Time limited

CI Checks



CI Checks

- Static analysis (CodeQL) to check for security vulnerabilities
- Feature-flag awareness (all on)
- Different environments
- OpenAPI
- Code and service owners

CI Checks

- Unit/integration tests
- Linter
- Sorbet
- Others, like dead code, PR size

Deploys

Merge queue

- Running CI
- Max 30 PRs in a group
- People are expected to watch the deploy
- Fully integrated with PR experience

Pipeline Overview

- Deploy to canary
- Deploy to staff cloud
- 2%
- 5xx, timeouts stop
- 5%
- Production deploy
- Deploy to different cloud regions
- Merge

Observability

Automatic

- Detect and stop issues early
- Auto-pause and auto-rollback

Human

Check for problems (Datadog, Sentry)



Chat0ps

- Slack integration
- Review lab deploys
- Queue for deploy
- Posts information about deploy and exceptions
- Retries

Rollback

- One click
- Automatic
- Deploy main
- Short version of a deploy

Jumped and solo deploys

First deploy, then merge

Merge queue in practice

Deploying

- Enqueue PR in the
- Handovers
- Other work to do during a deploy

Autofix public API for historical alerts

Autofix public API

- 3 endpoints
 - Get
 - Create
 - Commit
- 10 PRs
- 2.5 weeks



How can you use what you learned today?

What's one thing you can change or introduce?

Happy deploys



you may want to read

- Docs: Managing a merge queue
- Blog: How GitHub uses Merge Queue
- Blog: Building GitHub with Ruby and Rails
- Blog: Enabling branch deploys
- Repo: Branch deploy Action
- Blog: 5 things to ship more secure

Thank you! Let's stay in touch 😊





Hana Harencarova



hharen

Q & A



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hharen