CodeDay

No internship? No problem!

Using Open Source as your first real-world job

Lola Egherman; CodeDay

CodeDay

Service note

- Slides available at the end
- 10min for questions
- Come find me after. I'll be around!

Look for me!
I'm helpful!!

Boxes like this have links to useful resources. They'll pop up when relevant, and I'll also recap them at the end.

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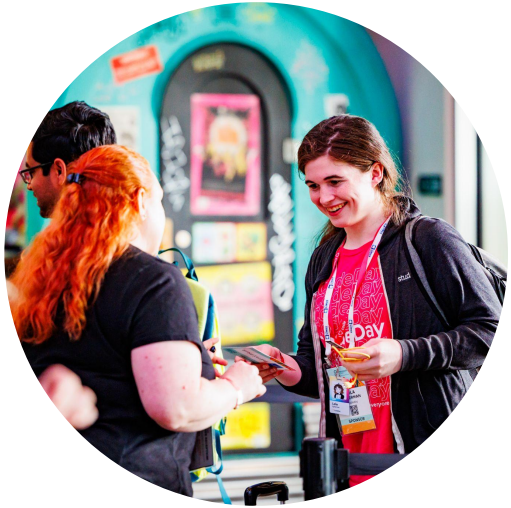
About me



Lola Egherman

lola@codeday.org

- Hi, I'm Lola! (she/her)
- I work for CodeDay
- I run an Open Source mentorship program
- My favorite animal is the opossum

© jessicawilms;iNaturalist
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Why should you listen to me?

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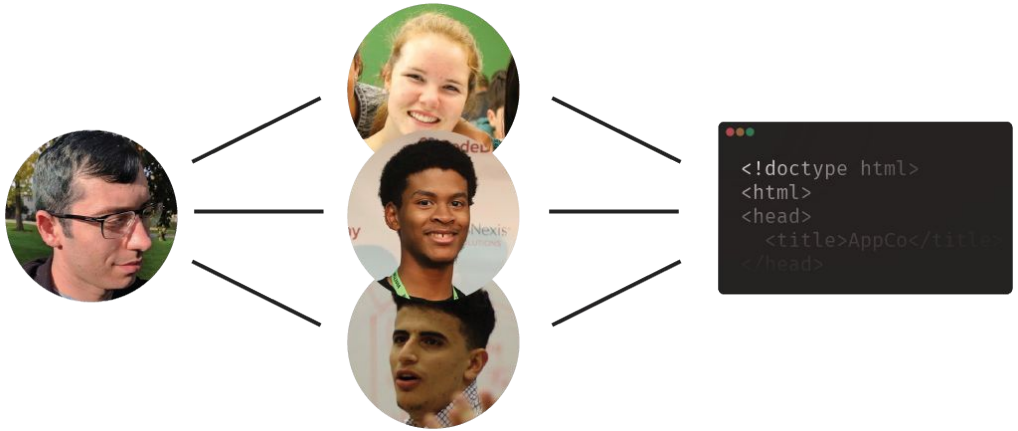
CodeDay Labs

- Online, free mentorship program for everyone
- ~1,000 students per year make their first contribution
- Connects students directly with industry
- Proven impact on hiring outcomes and job performance



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Mark F[redacted]

to me,[redacted]

Mon, Dec 8, 2025, 2:11 PM

To give my brief thoughts, I think [redacted]s presentation of his work in his resume and links were superb. I also just chatted with him and he showed off his oozing passion.

Clearly, you've given your cream of the crop to consider and I think his profile is the benchmark for others to follow (unless you are holding back :P).

I gave this feedback directly to [redacted] already. Overall his resume is stellar but two more things would help even further:

1. Reduction in **bold** in his sub-bullets. I don't know what is important. Instead, limit to 2-3 per section max
2. Make sure the links work. When recruiters scan resumes, the links disappear. Unroll the links.

With all that said, I have already forwarded his resume to our AppInfra team which is responsible for CI/CD as I could see his passions aligning with that team's responsibility.

Let me know if you have any other thoughts or questions.

•••

“oozing passion” “cream of the crop” “stellar resume”

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The Open Source Resume

[redacted]

Education

City College Of San Francisco | willing to relocate for jobs — **Expected Graduation: May 2027**

Bachelor of Science in Computer Science — ***GPA - 4.0*** — *San Francisco, CA*

- Courses: Java Object Oriented, Java Data Structures and Algorithms, Introduction to Relational Databases

Technical Skills

Languages: Go, Kotlin, Python, C#, Java, JavaScript, TypeScript, MySQL, GraphQL, PostgreSQL

Developer Tools: AWS, Git, Gitlab, Kubernetes, Docker, Postman, Google Cloud Platform, GNU Linux, HTML5, CSS

- PR #[redacted] for Dagster (merged)
- PR #[redacted] for Keyshade (merged)
- Issue #[redacted] for Apify (no PR but [redacted]'s investigation led to the bug getting closed)
- PR #[redacted] for Eclipse (code review process is ongoing but going in a good direction)
- PR #[redacted] for Dagster (PR was rejected because someone else submitted a better solution which was accepted)
- PR #[redacted] for Apify (never received feedback)

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What does industry want?

"What do you need to see on a resume to feel like you're making a mistake to **not** interview a candidate"

Major Themes:

- Problem Solving
- Initiative
- Teamwork

Minor Themes:

- Domain Knowledge
- Product Sense
- Curiosity
- Persistence

We wrote a research paper about this:

https://dl.acm.org/doi/10.1145/3770762.3772529

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What does industry want?

Not mentioned:

- GPA
- Your school
- Extracurriculars

We wrote a research paper about this:

https://dl.acm.org/doi/10.1145/3770762.3772529

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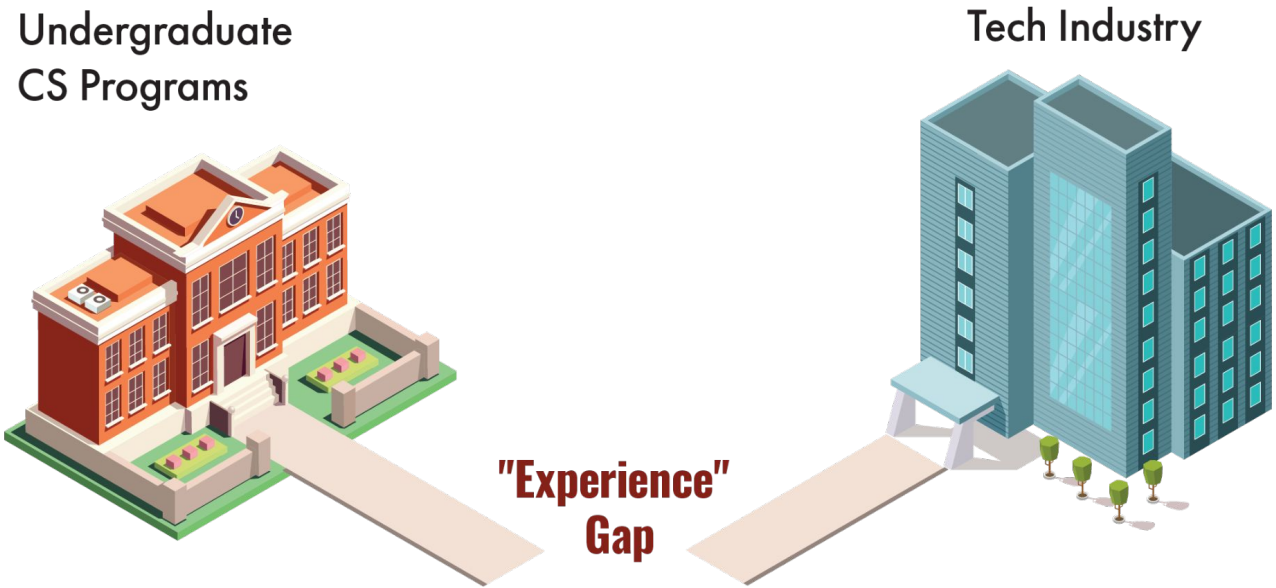
The “Experience Gap”



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How does Open Source Help?

Skills learned + demonstrated through Open Source:

- Problem Solving
- Initiative
- Teamwork
- Domain Knowledge
- Product Sense
- Curiosity
- Persistence

Skills easy to teach in a lecture:

- Domain Knowledge

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What is Open Source?

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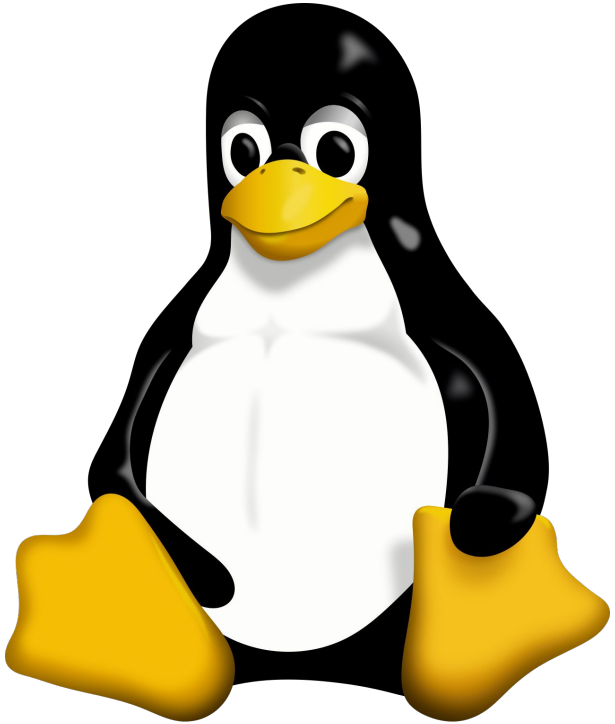
Open Source is everywhere



SCALE

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Open Source is everywhere

inkscape

master | inkscape | Find file | Code

Guard against duplicate entries in recently-used.xbel
vishalmudhirajpokala authored 1 month ago and PBS committed 2 days ago

d897dfee | History

Name	Last commit	Last update
.gitlab	Add default issue template encouraging ...	4 months ago
CMakeScripts	Allow unbundling src/3rdparty dependen...	1 week ago
LICENSES	Use a class derived from Gtk::Dialog for ...	5 years ago
buildtools	Replace Python package appdirs with pla...	1 month ago
doc	Add some GSOC project proposals	1 month ago
man	Update tutorials and man page (currently...	1 year ago
packaging	Add missing comma for inkscape-extensi...	2 days ago
share	Add ellipse center input to object propert...	3 days ago

Star 3870

Project information
Inkscape vector image editor

svg | vectorgraphics | C++ | + 3 more

pipeline passed

29,386 Commits
203 Branches
56 Tags
14 Releases

README
LICENSE
CHANGELOG
CONTRIBUTING
GitLab Pages

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iNaturalist

inaturalist / inaturalist

Watch 37 | Fork 218 | Starred 791

How It Works

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Open Source is everywhere

all-contributors / **allcontributors.org**

Watch 81 | Fork 1.7k | Starred 8k

Contributors ✨

Thanks go to these wonderful people (emoji key):

Kent C. Dodds	Jeroen Engels	Jake Bolam	Tyler Benning	Jeff Wen	Maximilian Berkmann	Matheus Rocha Vieira
Robert Lluberes	이종진	Wenqing Xue	Divjot Singh	Ben Briggs	James Monger	Chris Simpkins
F. Hemberger	Daniel Kraft	Mayank Badola	Marco Biedermann	Itai Steinherz	Patrick Connolly	Nikola Đuza
Damian	Michael Peyper	David Sima				

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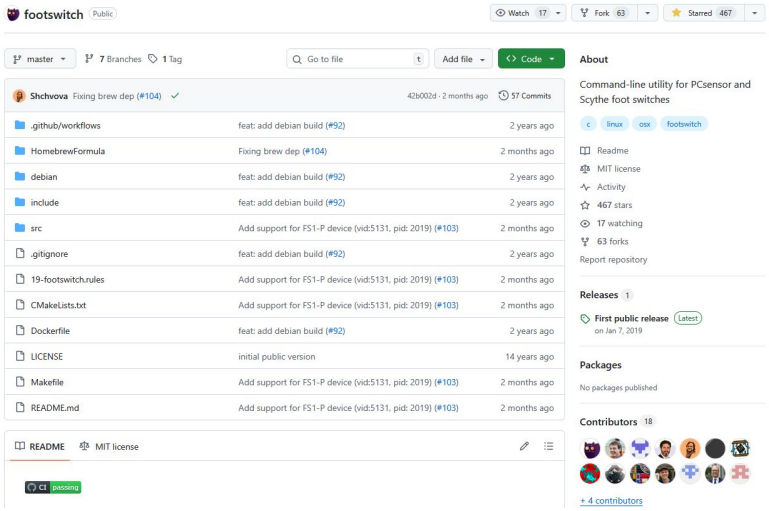
Open Source is everywhere



github.com/rgerganov/footswitch

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Open Source is Everywhere

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Congratulations!

You just gained domain knowledge!

Remember how easy it is to teach in lectures?

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How do I find an open source project?

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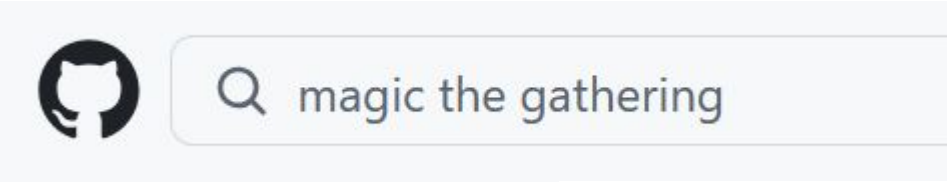
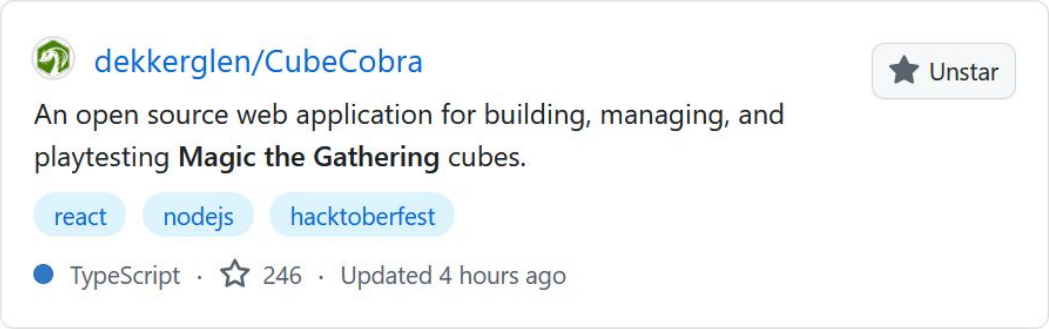
Start looking for one!

- Open source is everywhere, look for something interesting
- It's more motivating to work on something you care about
- Lots of projects are on GitHub, start by searching there





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Evaluating a Repository

- Does it matter to you?
- Project Size
  - Consider both community and codebase size
- Issue Tracker
  - Is it active?
  - Look for “good first issue” tags
- Programming Language
- CONTRIBUTING.md
  - Are there clear instructions on how to run it?
  - Look for community norms on pull requests

Resource: Project Evaluation Rubric

https://codeday.to/project-evaluation-rubric

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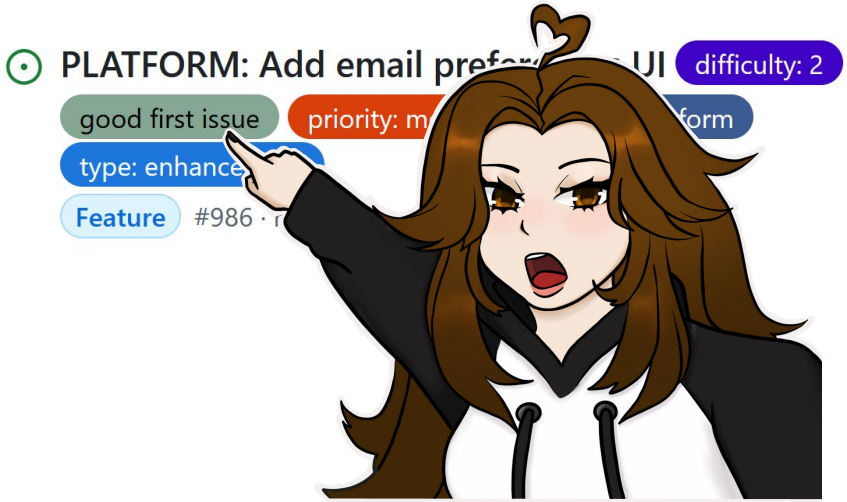
Resource: Shaping an issue

https://codeday.to/shaping-an-issue

Evaluating an issue

- Look for “good first issue” tags!
- Is the issue reporter clear about what they’re asking?
- Does the issue have starting points?
- Doesn’t have to be technical!
- Start small



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Stop showing dashed names when creating a classroom #167

Closed #193

GuillermoFloresV opened on Oct 26, 2022 · edited by GuillermoFloresV Edits Member

For the sake of UX, we can start to show normal titles (non-dashed) rather than dashed names when creating classrooms inside of our modal.

Current view of the modal:

We store the non-dashed names inside of the same block where we store the dashed names so we can simply pass them along

utsab on Nov 13, 2022 · edited by utsab Edits Collaborator

This is the API endpoint which is being called to get the list of certifications from freeCodeCamp: https://www.freecodecamp.org/curriculum-data/v1/available-superblocks.json

This will help you determine where to make the changes.

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[2.0] Document workarounds for inter-addon dependencies #7798

New issue

Open Task

davepagurek opened on May 7, 2025 · edited by ksen0 Edits Contributor

Topic

There are some scenarios right now where you might want to have multiple addons in the same sketch. Sometimes, if those addons depend on each other, then the ordering of your addon script tags can affect whether or not the sketch runs correctly.

I proposed a potential API change in #7797 to help resolve these issues, but in the mean time, there are some workarounds that we can document.

- **For end users:** You can rearrange your script tags to put them in the correct order. There are slightly more involved instructions for doing this in OpenProcessing since you'd have to switch your sketch to HTML mode.
- **For addon developers:** @quinton-ashley had a good idea, and that is, bundling all of an addon's dependencies into one file. e.g. if your addon depends on the preload addon existing and running after your addon, then it could make sense to just include the preload code after your code in your bundled js file.

This documentation could live in https://github.com/processing/p5.js/blob/dev-2.0/contributor_docs/creating_libraries.md but also that document needs to be updated for 2.0 as well.

1

Assignees

VANSH3104

Labels

Discussion Good First Issue Help Wanted

Type

Task

Projects

p5.js docs & tools

Status Ready for Work

p5.js 2.x

Status Ready for Work

Milestone

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Looking for a project and issue teaches you

- Initiative
- Product Sense
- Curiosity

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What is the hardest part of contributing to Open Source?

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There isn’t one.

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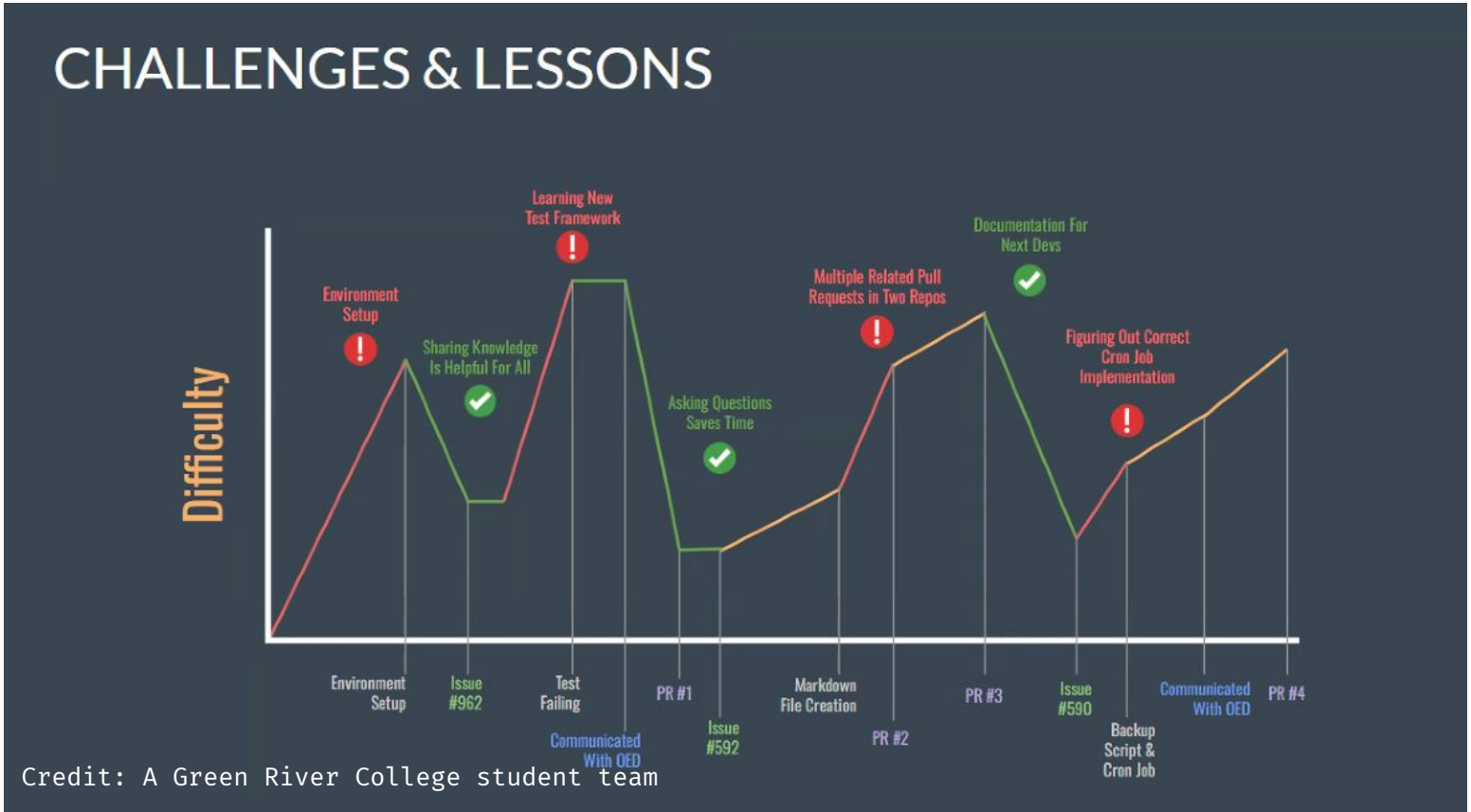
Contributing to Open Source is not always easy



Credit: A Green River College student team

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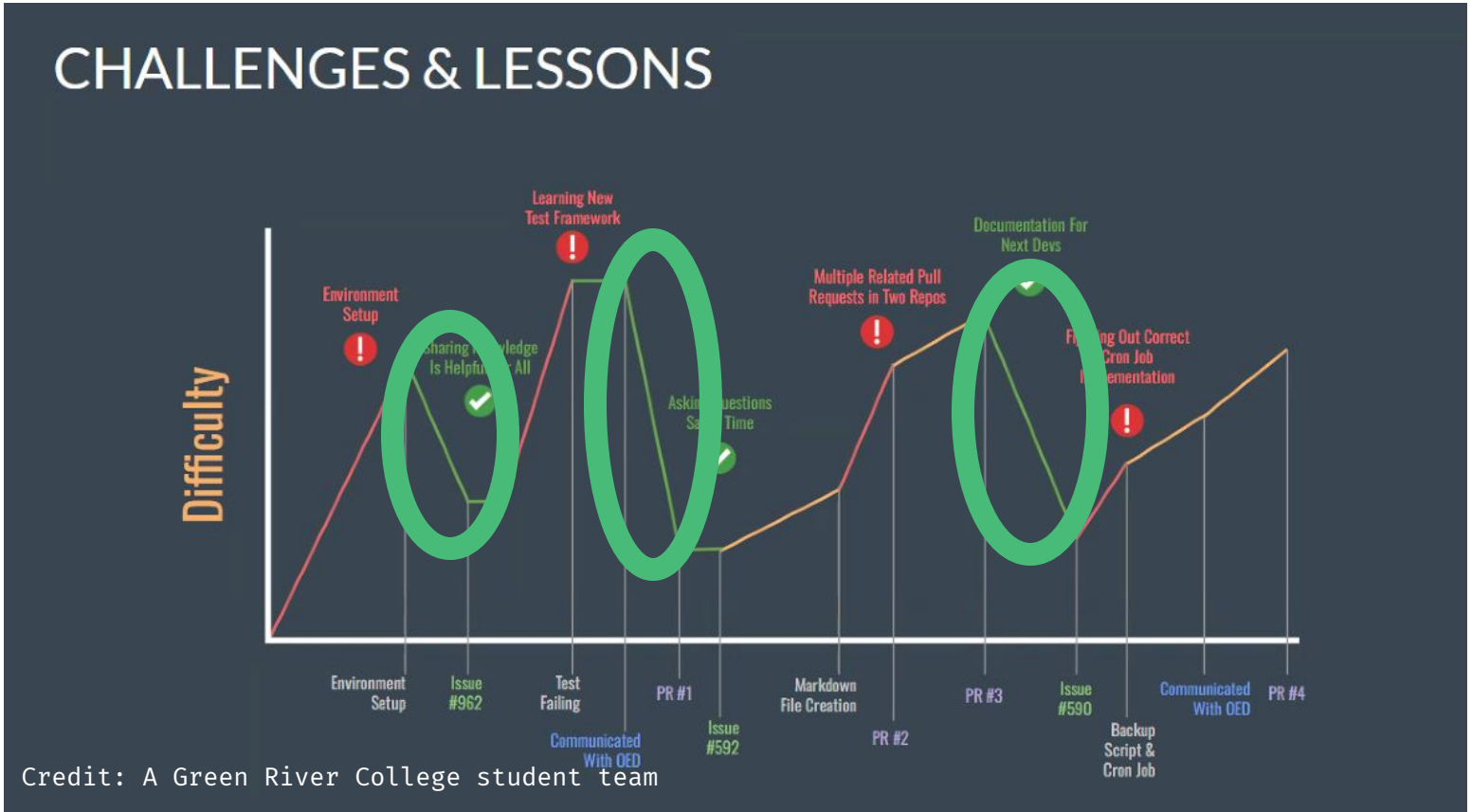
Contributing to Open Source is not always easy



Credit: A Green River College student team

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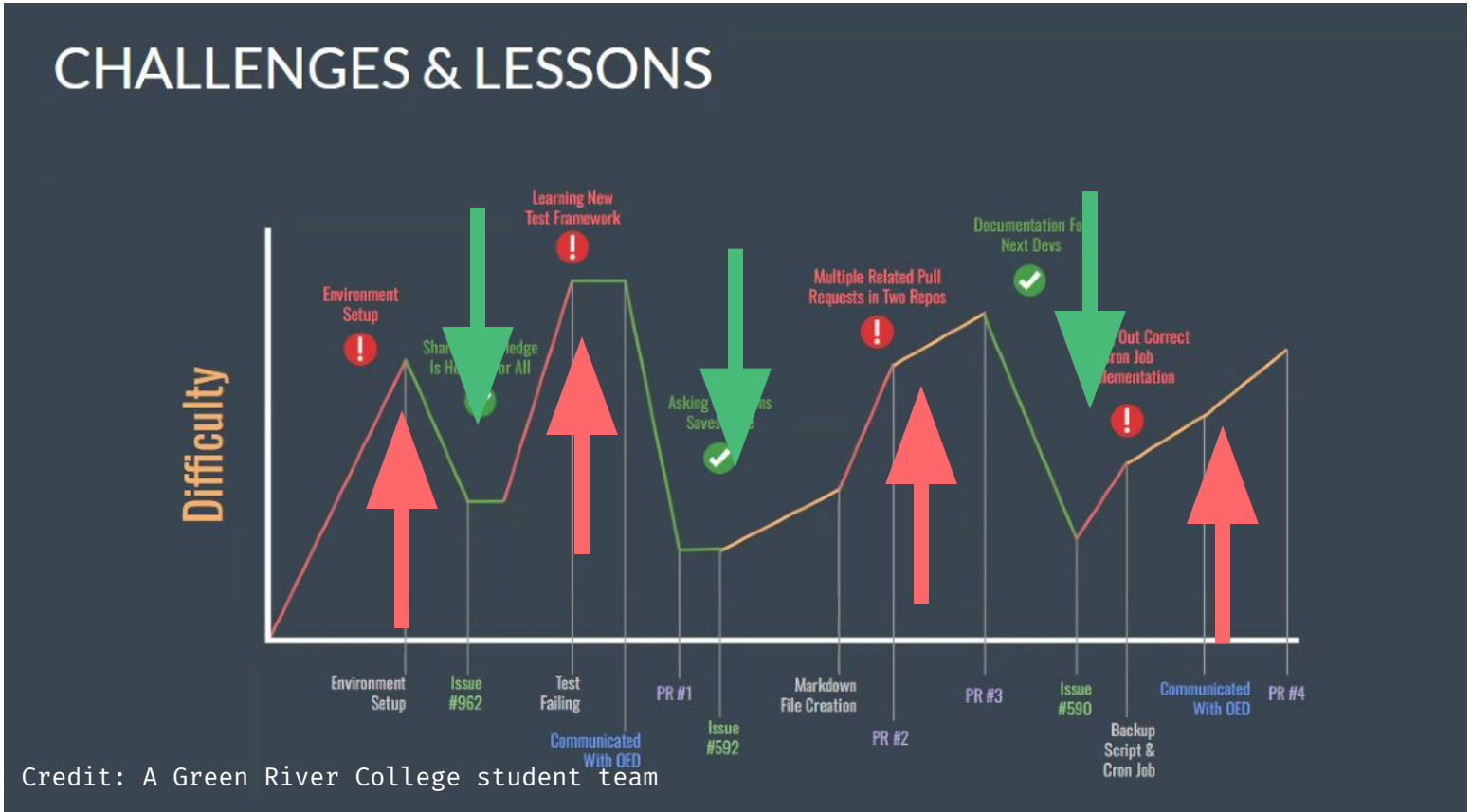

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CodeDay

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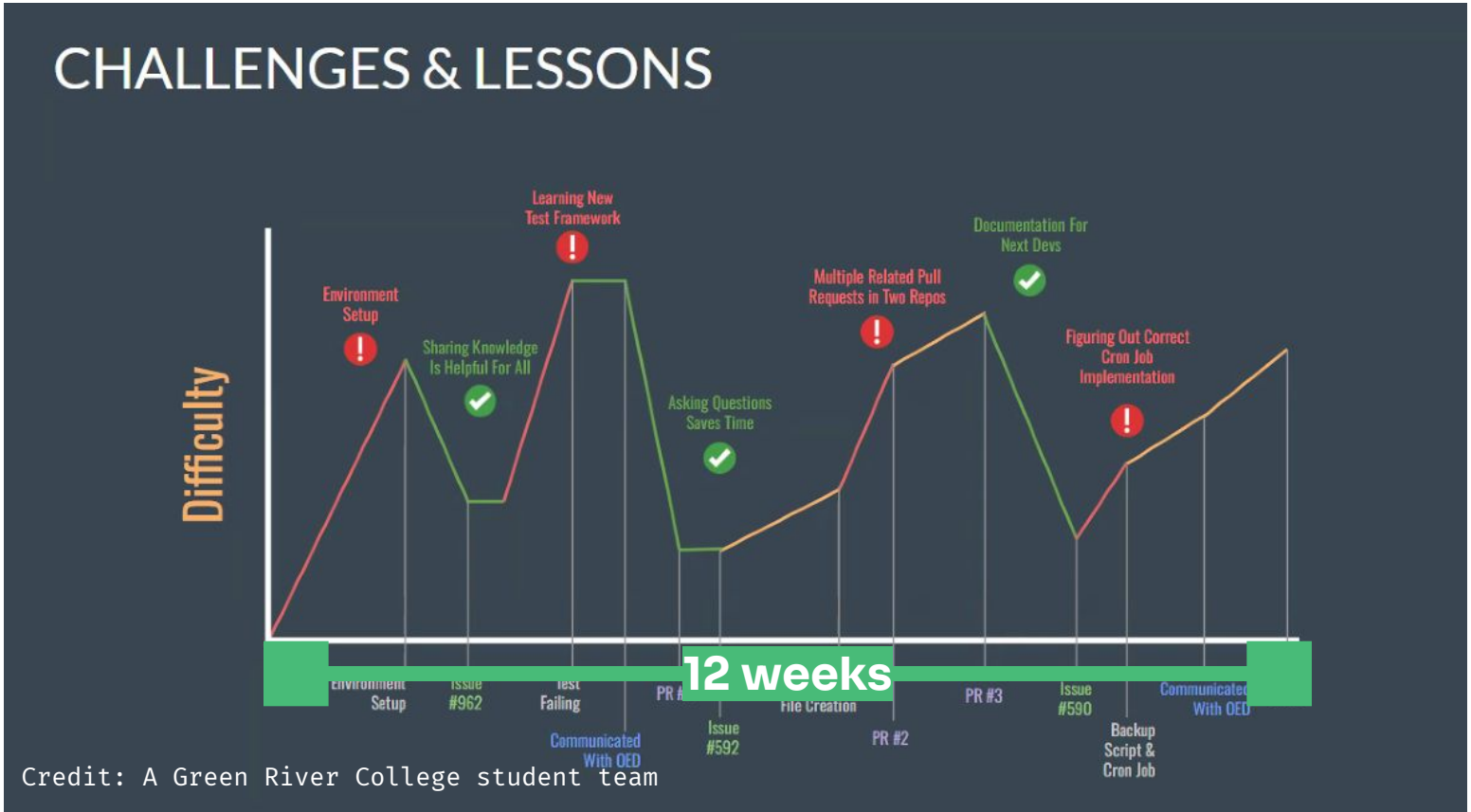

Credit: A Green River College student team

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Things you will likely struggle with (and why that's good)

- Setting up a development environment
  - problem solving, persistence
- Navigating a large codebase
  - This happens every single day in industry
  - problem solving, curiosity, persistence
- Solving new problems
  - problem solving (duh,) initiative, domain knowledge
- Using new technologies/languages
  - problem solving, domain knowledge

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It's ok to ask for help

- Lots of projects have people dedicated to helping newcomers
- Everyone you're talking to started somewhere
- You can say "this is my first open source contribution, I'm not sure what to do next"

Asking for help demonstrates initiative, teamwork, and persistence!

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You are solving problems nobody has ever solved yet

- In school, everything has a right or wrong answer
  - If you get stuck, an expert can explain how to get the right answer
- Open Source is nothing like school
  - Experts might be able to give you a rough idea, but not everything
- Industry is nothing like school, either
  - This is why problem solving is so important to recruiters

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How does contributing to open source work?

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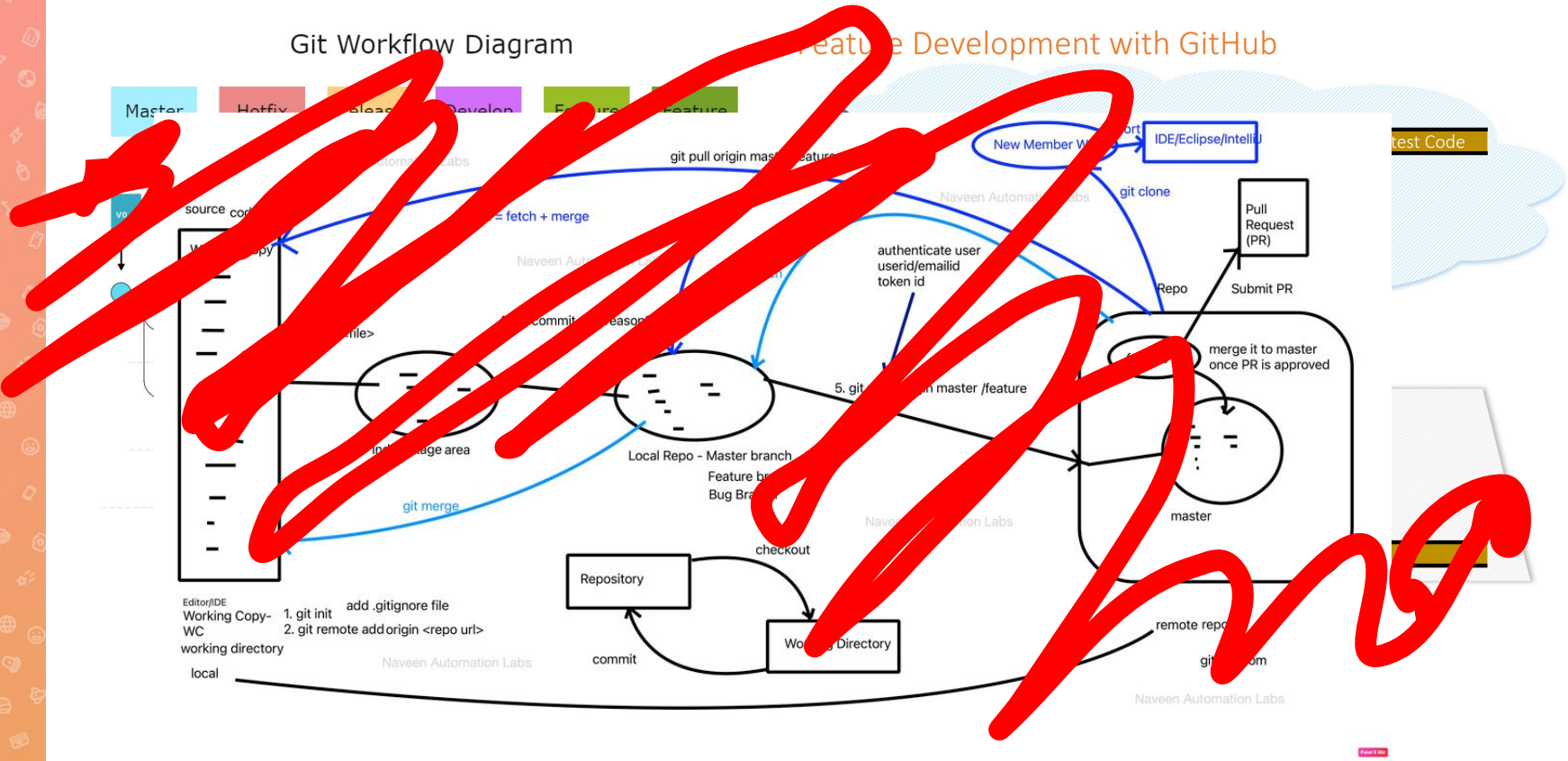
Open Source is less confusing than you think



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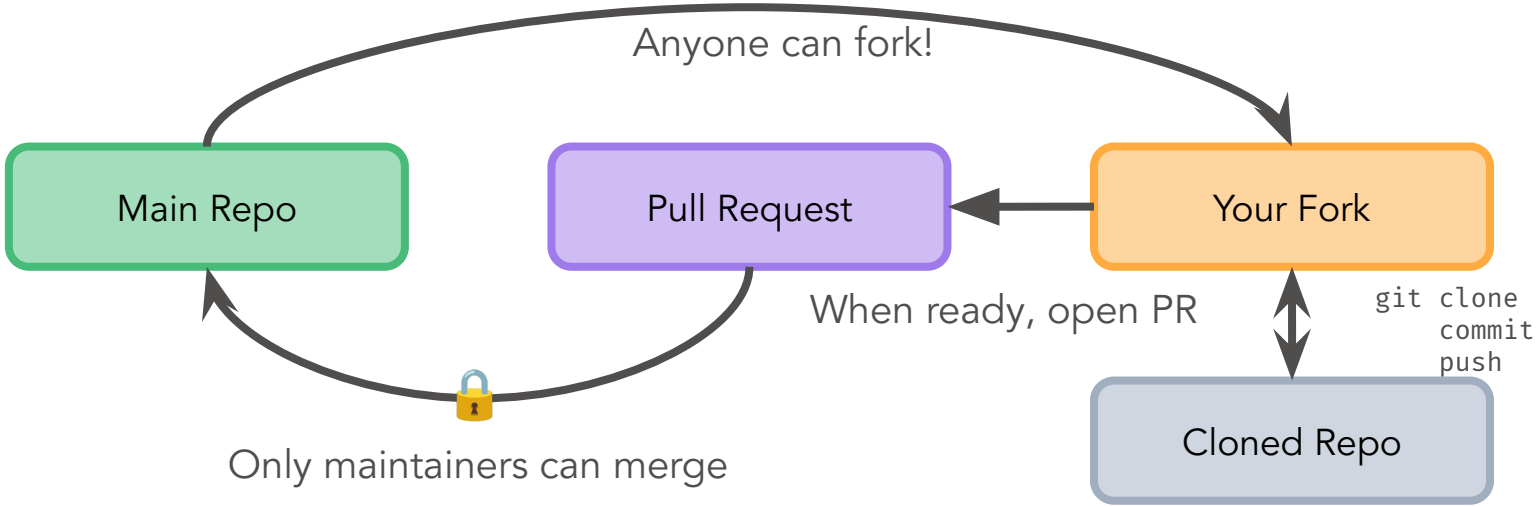

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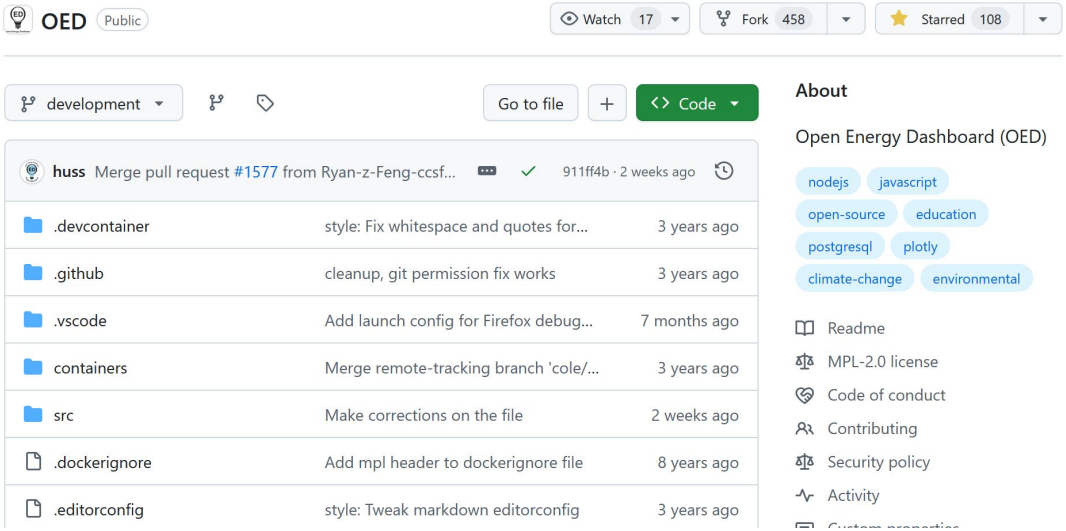
Open Source is less confusing than you think

Main Repo

- Where everything starts
- Contains finalized, production code
- How users download the project



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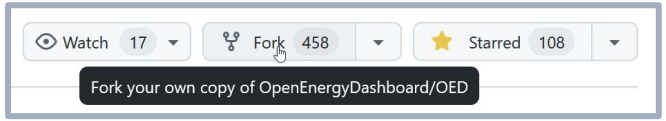
Open Source is less confusing than you think

Anyone can fork!



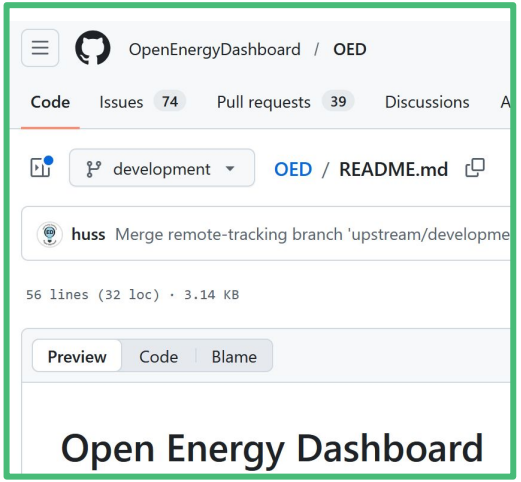
Main Repo

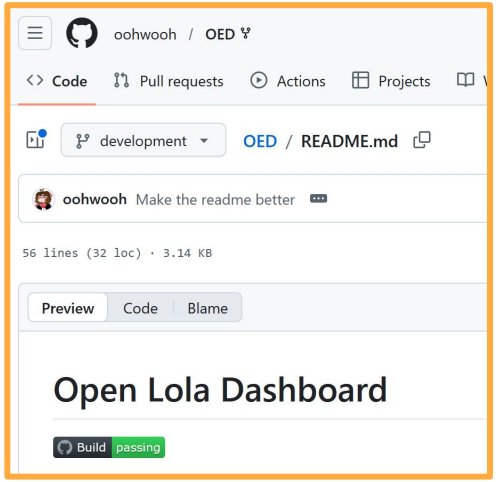
Your Fork

Forking creates your own personal copy of the Main Repo

<u>Changes you make in your fork don't effect the Main Repo</u>

- You can do anything you want!





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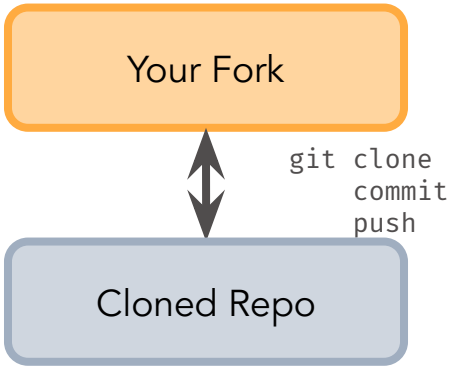
Open Source is less confusing than you think

- To make code changes, you “clone” (download) the repo to your computer
- This lets you run and edit the project in your IDE of choice
- Once you make a change, you “commit” and “push” (upload) them to your fork
- Remember your fork is <u>completely separate</u> from the Main Repo




```
PS D:\CodeDay> git clone https://github.com/oohwooh/OED
Cloning into 'OED'...
remote: Enumerating objects: 64519, done.
remote: Counting objects: 100% (1414/1414), done.
remote: Compressing objects: 100% (438/438), done.
remote: Total 64519 (delta 1285), reused 976 (delta 976), pack-reused 63105 (from 3)R
Receiving objects: 100% (64519/64519), 42.41 MiB | 64.44 MiB/s, done.
Resolving deltas: 100% (49305/49305), done.
PS D:\CodeDay>
```

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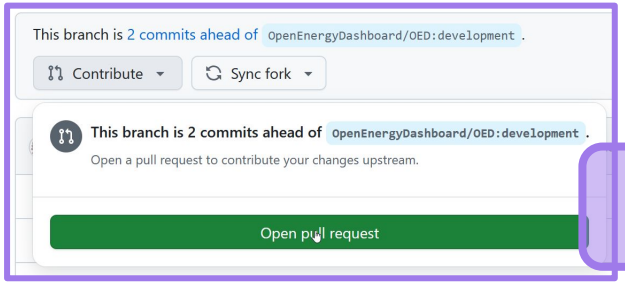
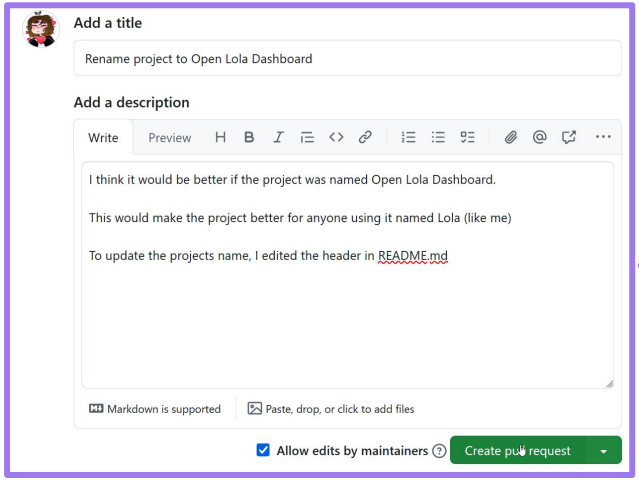
Open Source is less confusing than you think



Pull Request

Your Fork

When ready, open PR



"Hi Maintainer!
I made this code, here's what it does.
Do you want to use my code in the project?"

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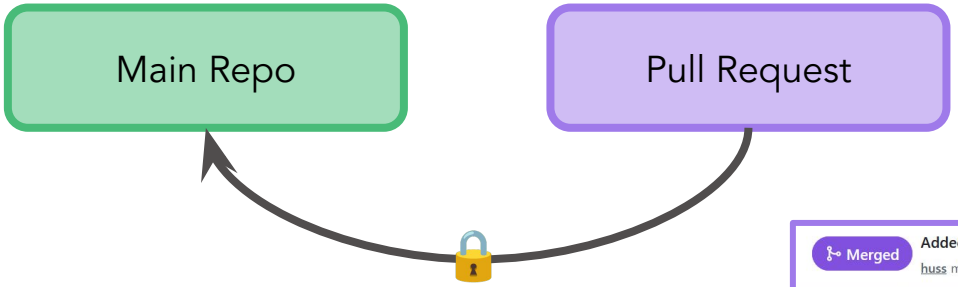
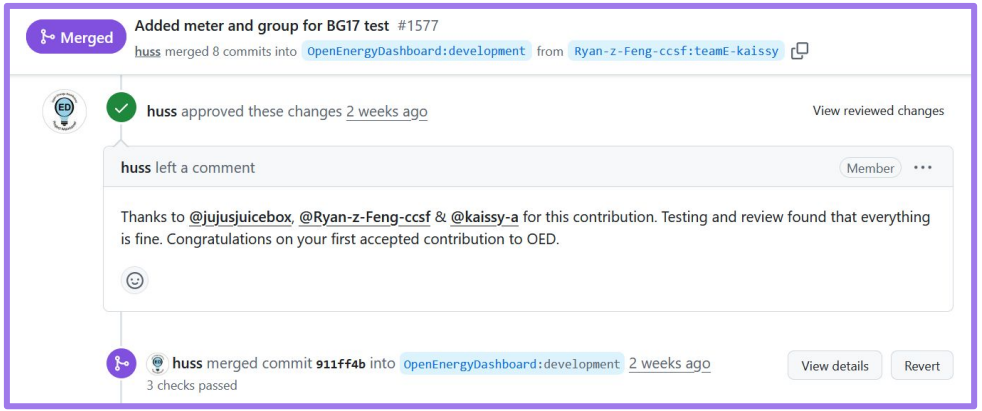
Open Source is less confusing than you think



Only maintainers can merge

- Maintainers will review your code and give feedback
- If it looks good they will "merge" your PR



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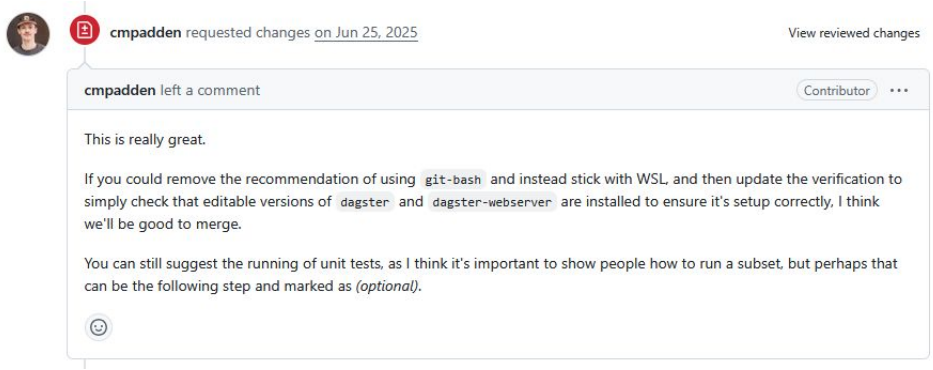
Some things that might happen

- Sign a CLA
- Add test cases
- Explain your reasoning
- Change your indentation or syntax
- Fix build errors



It's normal to be asked to make changes

Maintainers ask for changes to be made all the time - this happens to everyone!

It doesn't mean you failed or that you did something "wrong"

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Congratulations!

You just gained more domain knowledge!

It's still just as easy to teach in lectures

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What even is a “maintainer?”

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What is a maintainer?

- Maintainers are trusted members of the community who have permission to make code changes
- Maintainers are often volunteers, helping contribute to open source in their spare time
- Projects can have any number of maintainers

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Maintainers are humans - just like us!

Colton Padden

github.com/cmpadden

Rajdip Bhattacharya

github.com/rajdip-b

Kit Kuksenok

github.com/ksen0

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How to talk to a maintainer

- Be respectful of their time
- Communicate clearly, concisely, and be transparent
- Stay professional
- Do your homework first
  - Research before asking for help
  - Make sure to test your code before opening a PR

Maintainers are there to help!

Productive conversations with maintainers demonstrates teamwork

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It sounds like Open Source is lots of talking to others, That sounds scary!

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Specific teamwork skills Open Source helps you learn

- Asking for help
- Talking about your code non-technically
- Working on code with others
- Handling disagreements in a professional setting

You will use these skills every day in industry

Just like learning to code, learning all of these things take time

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Can I contribute to open source even without internship or work experience?

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(spoiler: the answer is yes)

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Yes!

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Anyone can (and should) Open Source

- Start small
- Non technical changes are still valuable
- Even if you make a mistake, maintainers are there to help
- Mistakes you make can't impact users

Everything you do makes you better at problem solving

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How do I talk about my open source contributions to recruiters?

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Resource: Talk to Gina

Gina Verrastro
DevOps Engineer

Write about your experience

When you do something you're proud of, brag about it!

- https://www.linkedin.com/pulse/implementing-php-getprice-function-edgar-hernandez
- https://www.linkedin.com/pulse/enhancing-back-end-functionalities-open-source-software-tam-nguyen
- https://www.linkedin.com/pulse/contributing-open-source-codeday-labs-luke-berry

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How to list Open Source contributions in your resume

- Overview of the project + issue (product sense)
  - Who are users? How many?
  - Why does the issue you solved matter?
- Use specific technical language (domain knowledge)
  - What languages/frameworks did you use?
- Mention a specific challenge you overcame (problem solving)

Include links to specific artifacts. Recruiters want to click through!

- GitHub Issue/PR
- Blog post

freeCodeCamp Classroom *CTI-CodeDay SWE Micro-Internship*

- Contributed to the Classroom Mode feature for freeCodeCamp, an open source learning platform with over one million monthly active users. Collaborated with 2 other student interns and an industry mentor from Midpoint Labs.
- Implemented a solution to fix the inconsistent format of the data sent from a **React** component to a **Next.js** API endpoint (pull request)
- Improved the documentation for the setup instructions using gitpod (pull request)
- Frameworks/Technologies Used: React, Javascript, Prisma, Next.js, Node, postgresql

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Highlight what your contributions demonstrate

Problem Solving

- I solved [number] issues in [project]
- I closed [really challenging issue]

Initiative

- I noticed, reported, and fixed [this bug]
- I wrote documentation and unit tests for my [pull request], even though it wasn't a requirement

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Highlight what your contributions demonstrate

Teamwork

- I gave feedback on [other person's issue]
- I accepted other person's feedback on [my issue]

Domain Knowledge

- I learned how to use [tool/language] for [pull request]

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Highlight what your contributions demonstrate

Product Sense

- I participated in a [discussion] to help shape [new feature]
- I know the users of [product] and can tell you about how they use it

Curiosity

- I tried several different solutions before settling on [my fix]
- I wrote a [blog post] detailing my learning about [something you didn't understand]

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Highlight what your contributions demonstrate

Persistence

- I got a [pull request] merged after several rounds of back-and-forth discussion with maintainers
- I almost gave up on [pull request] but finally figured it out

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What should I do next?

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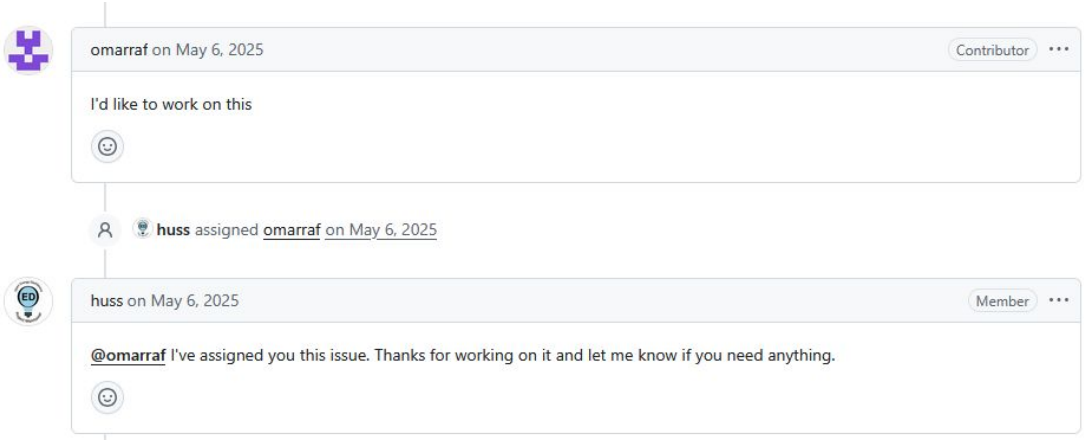
Resource: OS Project Contribution Guide

https://codeday.to/os-contrib-guide

First steps

- Find a cool project
- Pick an issue
- Comment “I’m working on this”
- Open a pull request that addresses the issue



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Resource: Project Evaluation Rubric

https://codeday.to/project-evaluation-rubric

Evaluation Factor	Level (0-2)	
Licensing		
Language		
Level of Activity		
Number of Contributors		
Product Size		
Issue Tracker		
New Contributor		
Community Norms		
User Base		
Total Score		

Does it matter to you?

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Resource: Shaping an issue

https://codeday.to/shaping-an-issue

Shaping An Issue

Enhancements
This is precisely what the name says—issues of this type add new functionality to your app. For example, this could be a new API route or a new function added to your library. It is easy to get swept away with complex issues when making new features, so feel free to split your issues up into small parts if you think that they are too big.

Example issues:
- Issue #2026 (Change default permissions for file transport)
- Issue #5762 (Add a function to get the target frame rate)

UI/UX Improvements
Does something look a bit unpolished in your application? Or perhaps you don't like the format in which your data is presented (e.g. table form, list form)? These are the tasks that we are looking to give students to work on. Here are a few examples of issues in this bucket:

- Issue #167 (Stop showing dashed names when creating a classroom)
- Issue #134 (Creating more UX-friendly alerts)

Bug Fix
This is the broadest out of the categories. A bug fix can either be a security-related bug or a UI/UX-related bug. This is also the easiest out of the five categories to create since bugs (unfortunately) show up pretty frequently!

Example issues:
- Issue #238
- Issue #2144

Creating Tests
Most projects are very large and use TDD to ensure that nothing unexpectedly breaks. Some ideas to get you thinking: creating tests for React components, creating tests for API routes, and creating tests for a function.

Example issue:
- Issue #1920

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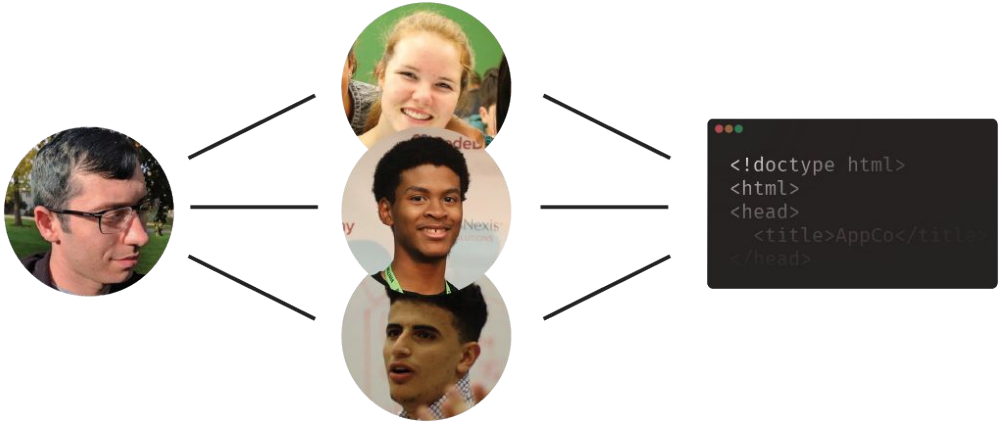
Resource: CodeDay Labs

https://labs.codeday.org

- June 29th-August 21st, 2026
- 8 week mentored program
- Public applications open in April
- Higher chance of acceptance if you've made a prior open source contribution



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Resource: Computing Talent Initiative

https://computingtalentinitiative.org

- CSUMB program
- Open to any CSU student
- Offers lots of helpful programs and courses
  - Including CodeDay Labs!

COMPUTING TALENT INITIATIVE

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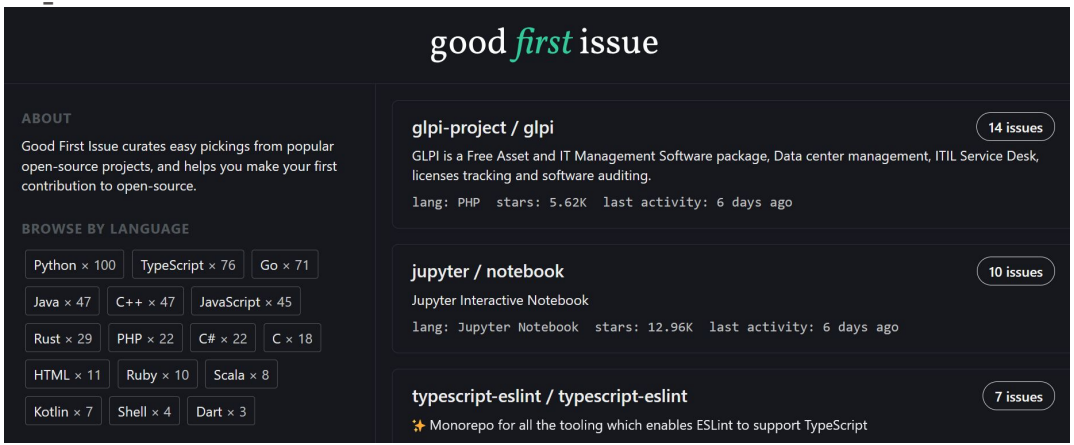
Resource: Good First Issue

https://goodfirstissue.dev



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Resource: Up For Grabs

https://up-for-grabs.net

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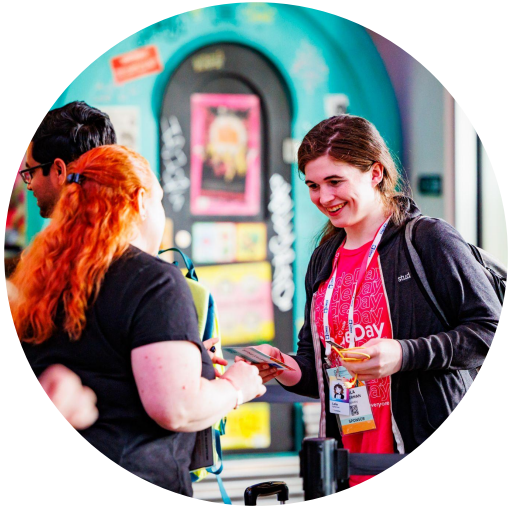
Resource: Slides

https://codeday.to/oscd-slides

Thank you! Any Questions?



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