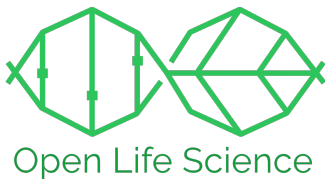


# Building open source communities

and empowering new contributors  
with **internship** programs

<https://bit.ly/oss-interns-iscb>

# Who am I?



Yo Yehudi  
Executive Director  
Open Life Science

Previously: Research Software Engineer, Technical lead at a Research Funder, SW engineer at academic spinouts and industry



@yoyehudi

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## **Opening question 1:**

Have you ever been an intern or supervised an intern? What (if anything!) made it memorable?

## **Opening question 2:**

What brought you to this session today? Are you interested in mentoring an open source intern?

# Open Source Internships



Google Summer of Code



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# Value Exchange with internship programs

## Intern benefits

- Interns get paid for their work
- Learn open source community norms
- Three months of experience on their GitHub profile
- Potential recommendations for future jobs.

## Organisation benefits

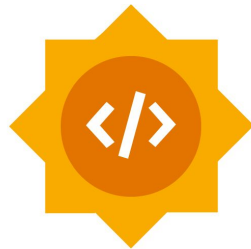
- Paid project work, often bringing in diverse skills that might not be suitable for a full-time hire
- The potential of adding interns to their recruitment pool

- Must be open source code!
- Must have 2+ community members, and ideally 2+ mentors per project.

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# GSoC

- Projects **175** or **350** hours long
- Previously only students - now anyone
- Code projects only!



**Google  
Summer of Code**

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Open source software  
developers self-report to  
be over 90% male and 15%  
or less self-report as BME

R. Stuart Geiger, <https://osf.io/preprints/socarxiv/qps53>, analysis of 2017 GitHub survey

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# Outreachy

“Anyone who faces under-representation, systemic bias, or discrimination in the technology industry of their country is invited to apply.”



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# Outreachy



- Each sponsored intern place costs \$7500 for a three-month internship.
- If you can fund one intern, Outreachy may be able to help you with funds for a second.
- The **Wellcome Trust** and the **Chan Zuckerberg Initiative** are sponsoring **open science internship** spots, which you can apply for.
- Runs twice a year
- Any open science or tech-related project, not just code

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# Time commitments

- Heaviest: **Before / during the intern application period:**
  - This can be very time consuming as there are usually far more applicants than spots available. Outreachy requires contributions of some sort (e.g. a pull request to a repo, a logo design, a writing sample, or similar).
  - Try and find a few tasks that can be done repeatedly (example, "pick a single file from this list and refactor it" or "sketch a logo design based on a requirement")
- **Intern selection period:** Can be really tough if you have lots of good interns!
- **Intern work period:** 2-10 hours per week. Depends on the intern and their experience
  - Start with an easy intern if you haven't done this before!

# Tips!

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Have a guide for applicants, participants,  
mentors

<https://github.com/intermine/internships>

<https://bit.ly/oss-interns-iscb>

# Have a grading rubric

<https://bit.ly/oss-interns-iscb>

Keep your interns engaged by running  
community building activities

<https://bit.ly/oss-interns-iscb>



Invite 'em back to mentor next year

<https://bit.ly/oss-interns-iscb>

- Consciously design interactions with your community - don't assume people will know what to do, and encourage growth in direction you want to see.
- Consider what value you're giving others and how you can maximise it
- Build pathways for contributors to increase their engagement, so the next step is always clear if people want to take it.

# Other ways to engage new contributors



Make 4 pull requests during October, get a free t-shirt.

Hacktoberfest contributors I've worked with have gone on to become full-time colleagues and GSoC contributors.

# Newbie-friendly issues

yochannah commented on 23 Oct 2019

Member



We have pep8 speaks set up to check files that are edited in PRs - but we still have some files that aren't checked because they haven't been edited in a while.

Task: Apply pep8 formatting to all files in this repo. You probably want to try a command something like `autopep8 . -r --in-place`.

Note that this command might not fix all long lines - some might need to be done manually.

## if you want to pick up this task

0. Take a look at the [InterMine contributing guidelines](#)
1. Comment on this issue stating that you intend to work on the task
2. When you're ready, add your work to the repo and create a pull request.

## What to do if you need help

Mention @yochannah, tweet @yoyehudi, pop by to say hi on [chat](#) or if needed email [yo@intermine.org](mailto:yo@intermine.org). Don't forget we're usually only available during uk office hours and will not be able to respond at other times :)

# Clear contributor guidelines

## General guidelines

- In busy periods, we may reassign inactive issues (with no PRs/comments/commits) after 3-4 days. Please don't feel bad if this happens! You're still welcome to contribute to other issues when you have the time.
- Be nice. Unpleasant behaviour in our community will not be tolerated. InterMine has a [Code of Conduct](#) that all contributors are expected to follow.
- If you find documentation is unclear or missing, make a PR to fix it once you know what needs to be done.
- If an individual repository has contributing guidelines or style guidelines, they override any advice given on this page.
- In need of help? Try visiting our [contact us](#) pages for ways to get more help. Also, feel free to pitch in if you think you know the answer to queries on the [mailing list](#) or [chat](#)!
- Thank you for being awesome!

## Picking up tasks

If you find an issue that interests you, here's what to do. Note that one of the key tasks is communication!

1. Read through the issue and **make sure you understand what to do**. If you need to clarify details, it's okay to ask in the issue.
2. Once you feel you're ready to work on the issue, **comment on the issue** to let us know you're working on it! This is important to ensure that no-one else picks up the ticket and works on it at the same time.
3. **Work on the issue** - make sure to conform to any guidelines there may be in the repo if relevant, e.g. write tests and make sure the pass in CI, comment and document your code, make sure the style formatting checks pass, etc. Ask for advice if needed.
4. When you think your work is ready - **make a pull request**! You're a star! 🌟
5. We will **review your work**, checking for quality and correctness. It may take us a little while to review it, depending on what else is going on at the time. We may have feedback or changes required before we can merge your pull request.
6. Once it's merged - bask in glory. You've just committed code to an open source project!

# Finding an issue to contribute to

## Contributing - tickets to try

Interested in helping out? Here are some of the issues we're looking for help with. Please read [our contributing guidelines](#) first!.

Repo language	Repo name	Issue	Labels
CoffeeScript	<a href="#">im-tables</a>	<a href="#">[easier if you have familiarity with node] review contributing docs and ensure project builds</a>	first-timers-only   hacktoberfest
Java	<a href="#">intermine</a>	<a href="#">Investigate code coverage solutions</a>	enhancement   good first bug   help wanted
Java	<a href="#">intermine</a>	<a href="#">Expand web service clients' cookbooks</a>	docs   good first bug
Java	<a href="#">intermine</a>	<a href="#">Unescaped pipes in the trail break tomcat 8</a>	bug   good first bug
Java	<a href="#">intermine</a>	<a href="#">Data download script: don't download if version is the same.</a>	data   enhancement   good first bug
Java	<a href="#">intermine</a>	<a href="#">Clients need to be updated to query for regions</a>	good first bug
null	<a href="#">imjs-docs</a>	<a href="#">Convert markdown js code block examples to Jupyter notebooks</a>	good first issue   hacktoberfest   help wanted
Java	<a href="#">intermine-ws-java</a>	<a href="#">flush XMLOutputStream buffers?</a>	good first issue   help wanted
Jupyter Notebook	<a href="#">intermine-ws-python-docs</a>	<a href="#">Periodically build notebooks to ensure they haven't broken</a>	help wanted
R	<a href="#">InterMineR</a>	<a href="#">Enrichment vignette: change from pie-charting p-val to pie chart of -log(pval)</a>	enrichment   hacktoberfest   help wanted
Python	<a href="#">intermine-ws-python</a>	<a href="#">List upload: add tests for organism</a>	help wanted
JavaScript	<a href="#">intermine-registry</a>	<a href="#">Remove `namespace` from the list of authorisation endpoints</a>	help wanted

Clone from:

<https://github.com/yochannah/First-ticket-finder>

And configure for your organisation