# 如何参与开源项目和社区

周明辉 北京大学

# 引子

## • 基础了解

- 了解开源代码托管平台或教学平台: <a href="https://github.com/osslab-pku/OSSDevelopment/">https://github.com/osslab-pku/OSSDevelopment/</a>
- 了解开源项目的开发活动: 搜索感兴趣的技术或项目, 或任意搜索, 定位相关主页, 了解开发活动

## • 进阶学习

- 寻找开源项目的进入机制和规范
- 寻找新人的SIG及相关会议、Hackathon
- 寻找简单任务
- 有效沟通

# 1、寻找开源项目的进入机制和规范

• 贡献指南(例如readme 和 contributing.md文件)

• issue提交指南

• patch提交指南

# 以openEuler和node.js为例



- openEuler是一个Linux操作系统(2019.9.18上线), 旨在通过开放的社区形式构建一个支持多处理架构的软件生态体系。许可证: MulanPSL2
  - 基于openEuler的OS发行版:







• Node.js 是一个能够在服务器端运行 JavaScript 的跨平台运行环境。许可证: MIT



## 源代码: <a href="https://gitee.com/openeuler">https://gitee.com/openeuler</a>



## 源代码: https://github.com/nodejs

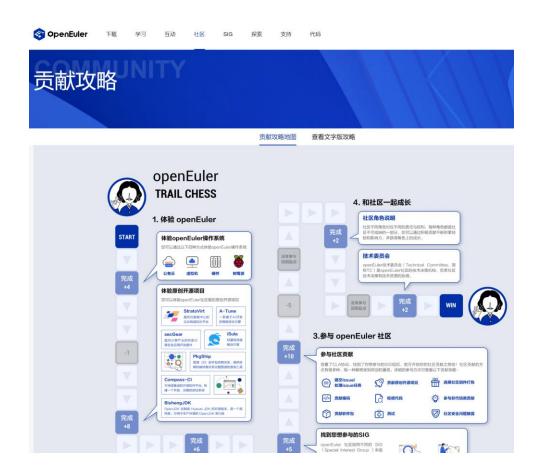
☐ Repositories 189 ② Packages A People 387 □ Projects ①		
lode.js JavaScript runtime <b>♦ ७ ⊘ ♦</b>	Node.js Release Working Group	♦ Need help with Node.js? File an Issue here.
JavaScript 🛱 80.5k 🖞 20.8k	☆ 2.7k ¥ 408	☆ 1k 약 251
node-gyp	☐ node-addon-api	☐ community-committee
lode.js native addon build tool	Module for using Node-API from C++	The Node.js Community Committee (aka CommComm)
Python ☆ 7.6k ♀ 1.4k	● C++ ☆ 1.2k 및 316	☆ 246 ¥ 93
Find a repository	Type * Language * Sort *	

## 贡献指南



## 贡献攻略

https://www.openeuler.org/zh/community/contribution/





### Contributing to Node.js

- · Code of Conduct
- Issues
- Pull Requests
- Developer's Certificate of Origin 1.1

### **Code of Conduct**

The Node.is project has a Code of Conduct to which all contributors must adhere.

See details on our policy on Code of Conduct.

### Issues

- How to Contribute in Issues
- · Asking for General Help
- Discussing non-technical topics
- Submitting a Bug Report
- · Triaging a Bug Report
- · Resolving a Bug Report

### **Pull Requests**

- Dependencies
- Setting up your local environment
- The Process of Making Changes
- Reviewing Pull Requests
- Notes

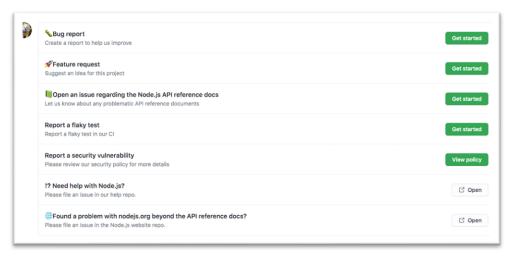
### **Developer's Certificate of Origin 1.1**

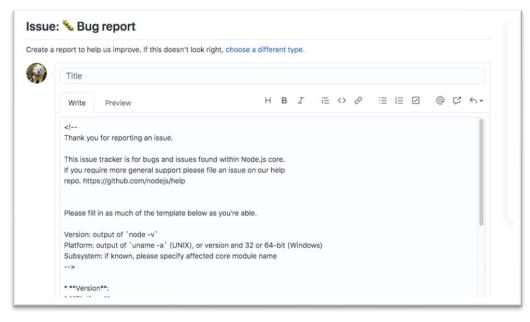
# 提交issue

## openEuler



## Node.js社区





# 提交PR

# openEuler

#### 提交信息 ?

update code-of-conduct.md.

#### 扩展信息

此处可填写为什么修改,做了什么样的修改,以及开发的思路等更加详细的提交信息。(相当于 Git Commit message 的 Body)

提交审核

取消

点击提交审核后,你将创建一个轻量级PR(详情),作者审核通过后合入仓库。

## Linux kernel指南

### 5.4. Patch formatting and changelogs

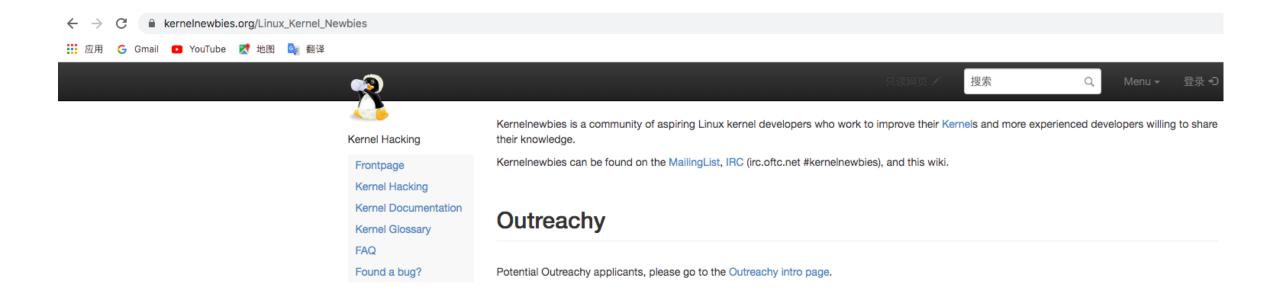
So now you have a perfect series of patches for posting, but the work is not done quite yet. Each patch needs to be formatted into a message which quickly and clearly communicates its purpose to the rest of the world. To that end, each patch will be composed of the following:

- . An optional "From" line naming the author of the patch. This line is only necessary if you are passing on somebody else's patch via email, but it never hurts to add it when in doubt.
- A one-line description of what the patch does. This message should be enough for a reader who sees it with no other context to figure out the scope of the patch; it is the line that will show up in the "short form" changelogs. This message is usually formatted with the relevant subsystem name first, followed by the purpose of the patch. For example:

gpio: fix build on CONFIG\_GPIO\_SYSFS=n

## 2, 寻找新人的SIG及其会议、Hackathon

- ·特定于新人的SIG
  - 例如: https://kernelnewbies.org/Linux\_Kernel\_Newbies
  - 包含一些新人经常问的问题、适合新人的issue、推荐的mentor等



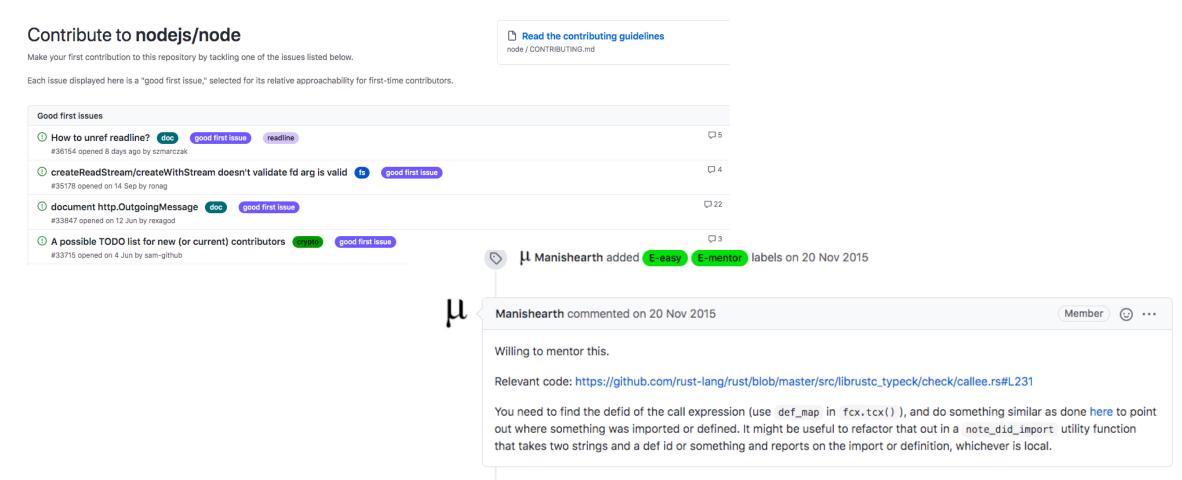
# 例如openEuler的社区活动

- 例如openEuler的系列讲座、SIG会议、hackathon
  - 2020-07-07 【手把手带你玩转openEuler】系列直播进行中
  - 2020-05-07<u>开源软件供应链点亮计划 暑期2020 openEuler</u> 社区任务发布

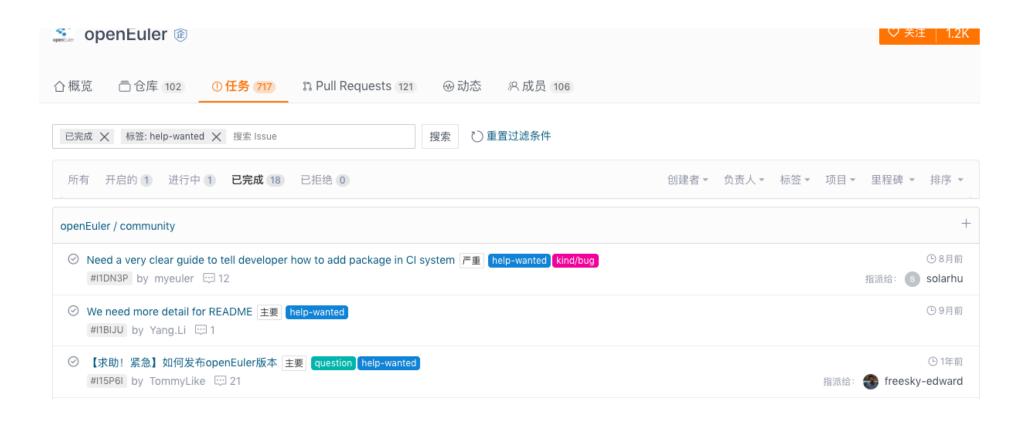
# 3, 寻找简单任务

· 在项目中寻找新手任务标签: 例如GitHub中的Good First Issue等标签

## Node.js社区



# openEuler的help-wanted标签



### **GFI-Bot**



ML-powered for finding and labeling good first issues in your GitHub project!

A GFI-Bot introduction paper is available as follows (in ESEC/FSE 2022 Demonstration Track):

• Hao He, Haonan Su, Wenxin Xiao, Runzhi He, and Minghui Zhou. 2022. GFI-Bot: Automated Good First Issue Recommendation on GitHub. In Proceedings of the 2022 ACM 30th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, ESEC/FSE 2022, Singapore, November 14-16, 2022. ACM. https://hehao98.github.io/files/2022-gfibot.pdf

The underlying ML approach is introduced in the following paper:

Wenxin Xiao, Hao He, Weiwei Xu, Xin Tan, Jinhao Dong, and Minghui Zhou. 2022. Recommending Good First Issues in GitHub OSS Projects.
In Proceedings of the 44th International Conference on Software Engineering, ICSE 2022, Pittsburgh, PA, USA, May 21–29, 2022. ACM.
https://hehao98.github.io/files/2022-recgfi.pdf

We provide a good first issue recommendation dataset at Zenodo.

### **Get Started**

GFI-Bot is available at https://gfibot.io, where you can browse through existing good first issue recommendations or register your own repository for recommendation. GFI-Bot can be installed in GitHub repositories from the GitHub App page.

NOTE: GFI-Bot is currently in pre-alpha stage. It is undergoing rapid development and still highly unstable. We cannot guarantee the preseveration of registered users and repositories in the next release and it may have unexpected behaviors on GitHub. We will change this note after GFI-Bot reaches a certain level of maturity

### Roadmap

We describe our envisioned use cases for GFI-Bot in this documentation.

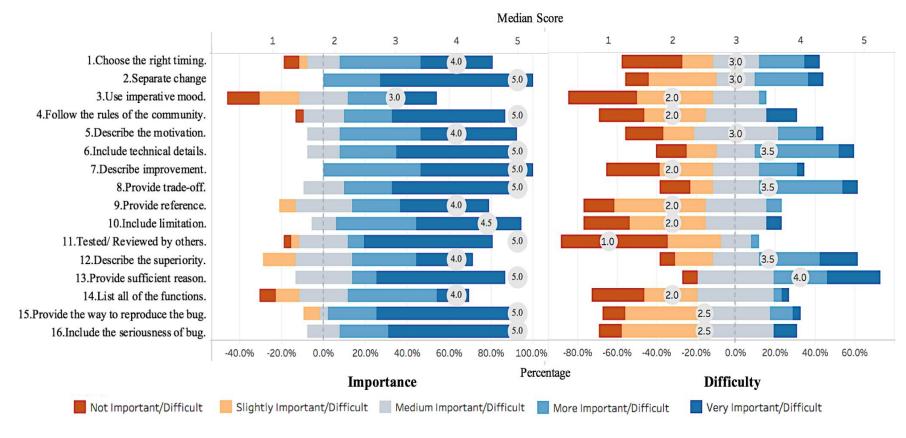
Currently, we are focusing on the following tasks:

- 1. Identifying an optimal training strategy
- 2. Improving user experience

https://github.com/osslab-pku/gfi-bot/blob/main/README.md

# 4、开源社区中text是唯一的沟通方式:请有效沟通

Linux kernel: – what to say, how to say it



## 最优沟通实践评估

# 小结

• 了解开源代码托管平台,

• 广泛搜索开源项目

• 定位特定项目,寻找进入机制

• 积极贡献,从easy task开始