

OPEN-SOURCE

Who, what, why, where, how

*or how I learned to stop hiding; and expose the
bomb*

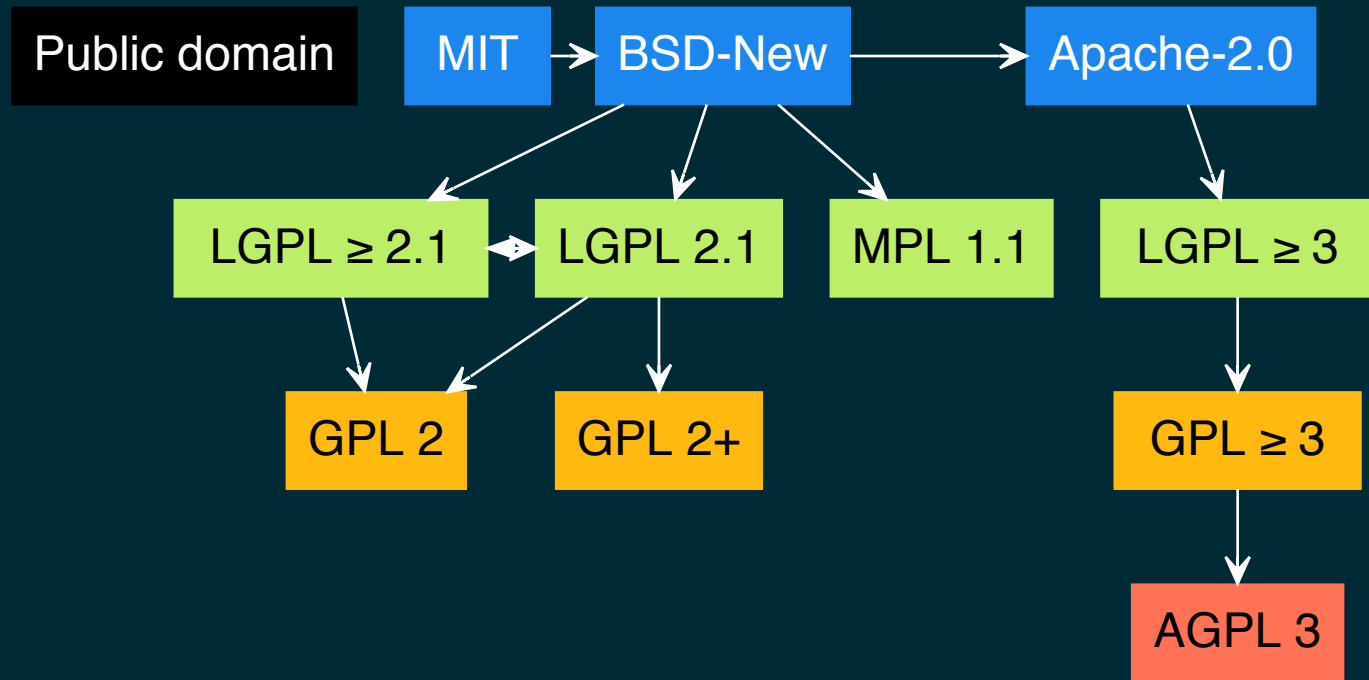
WHO AM I

WHAT

Open-source means freedom.

Freedom to share code, usually commercially
and privately.

LICENSES



WHY

- Development speed
- Quality (tests; security; ~~documentation~~)
- Interoperability
- Community

WHERE: CHARITY

**WHERE:
GOVERNMENT**

WHERE: BUSINESS

HOW: NEW PROJECT

0. Pick a license;
1. Pick a name;
2. Create a repository;
3. Upload repository (e.g.: to GitHub)

HOW: EXISTING PROJECTS

0. Pick a project;
1. Pull it to local computer [usually];
2. Make modifications;
3. Send back modifications

HOW: FOR NOOBS (GREEN)

New to programming, or a nonprogrammer?

No matter. Plenty of low-hanging fruit; *even*
for you!

(see appendix for details)

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APPENDIX

LOW-HANGING FRUIT

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MEDIUM-HANGING FRUIT

MEDIUM-HANGING FRUIT

- CI/CD integration (Azure Pipelines; Travis CI; Appveyor and/or CircleCI)
 - See next slide

CI/CD EXAMPLE (TRAVIS CI)

```
# Filename: .travis.yml
language: node_js
node_js:
  - "lts/*"
cache:
  npm: true

before_install:
  - npm install -g npm

install:
  - npm ci

script:
  - tsc
```

- npm test

after_success:

- npm run coverage

MEDIUM-HANG

- Interoperability, e.g.:
 - OS support for: Windows, Linux, macOS, FreeBSD
 - Language support for: Python 2 & 3 [not as relevant anymore!]; newer/older JS (ECMAScript) versions
 - Package support for application-level dependency managers, e.g.:
 - Python: `setup.py`; Node.js: `package.json`; Rust: `Cargo.toml`

MEDIUM-HANGING FRUIT

- Docker integration
 - See next slide

DOCKERFILE

```
# Filename: Dockerfile

# Use Node.js' long-term support release
FROM node:lts-alpine

# Copy source code
COPY . /app

# Change working directory
WORKDIR /app

# Install dependencies
RUN npm ci

# Expose API port to the outside
```


EXPOSE 80

ENTRYPOINT ["npm", "start"]

WORKSHOP

0) WORKSHOP: CONTRIBUTE

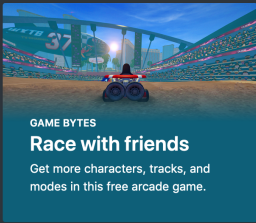
0. Create an account on <https://github.com>

1. Pick a project, e.g.: from
<https://github.com/explore>

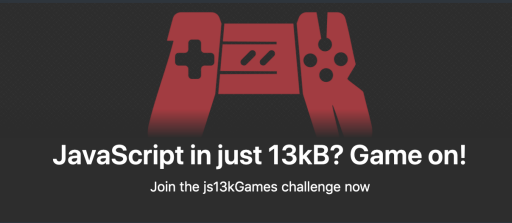
Explore

https://github.com/explore

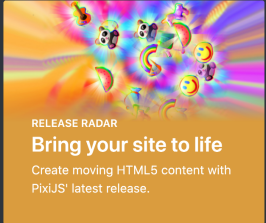
Search or jump to... Pull requests Issues Marketplace Explore



GAME BYTES
Race with friends
Get more characters, tracks, and modes in this free arcade game.




JavaScript in just 13kB? Game on!
Join the js13kGames challenge now




RELEASE RADAR
Bring your site to life
Create moving HTML5 content with PixiJS' latest release.

Explore Topics Trending Collections Events


Based on your interests

**docker / compose**
Define and run multi-container applications with Docker
★ 16.8k 📄 2.6k


Based on your public repository contributions

**rust-lang / backtrace-rs**
Backtraces in Rust
★ 149 📄 78


Based on your public repository contributions

**luckyframework / avram**
A Crystal database wrapper for reading, writing, and migrating Postgres databases.
★ 38 📄 17

Based on people you follow


**nestjs / typeorm**
TypeORM module for Nest framework (node.js)
★ 277 📄 33


Based on repositories you've viewed


**pingcap / kvproto**
Protocol buffer files for
★ 65 📄 54


Based on repositories you've viewed


Trending repositories

**chrislgarry / Apollo-11**
Original Apollo 11 Guidance Computer (AGC) source code for the command and lunar modules.
★ 43.2k 📄 17.6k

**b3log / baidu-netdisk-downloader**
一款图形界面的百度网盘不限速下载器。支持 Windows、Linux 和 Mac。

**Ovoice / interview_internal_reference**
2019 年最新总结。阿里、腾讯、百度、美团、头条等技术面试题目，以及答案。专家出题人分析汇总。

**chinese-poetry / chinese-poetry**
最全中华古诗词数据库，唐宋两朝近一万四千古诗人，接近5.5万首唐诗加26万宋诗。两宋时期1564位词人。

**qiurunze123 / millisecond**
★★★★秒杀系统设计工程师进阶与分析

Date range: This week

1) CONTRIBUTE

0. Install git: <https://git-scm.com/downloads>

1. Open your terminal / command prompt

2. Run `git clone` followed by the URL of the repository, e.g.:

```
git clone https://github.com/SamuelMarks/restify-orm-sca
```

2) CONTRIBUTE

3. **Modify** (e.g.: using the CLI, an IDE, manually modifying using a GUI file manager)
4. On the command-line, `cd` into the directory you cloned
5. Run:

```
git config --global user.name "FIRST_NAME LAST_NAME"  
git config --global user.email "NAME@example.com"
```

3) CONTRIBUTE

6. Create a **feature branch** with:

```
git checkout -b feature_name_goes_here
```

7. Add your modifications with:

```
git add .
```

8. Commit your modifications with:

```
git commit --message "Commit message goes here"
```


4) CONTRIBUTE

9. Put your changes online, with:

```
git push origin feature_name_goes_here
```

10. Send PR—using [hub](#) CLI—or online (see next slide)