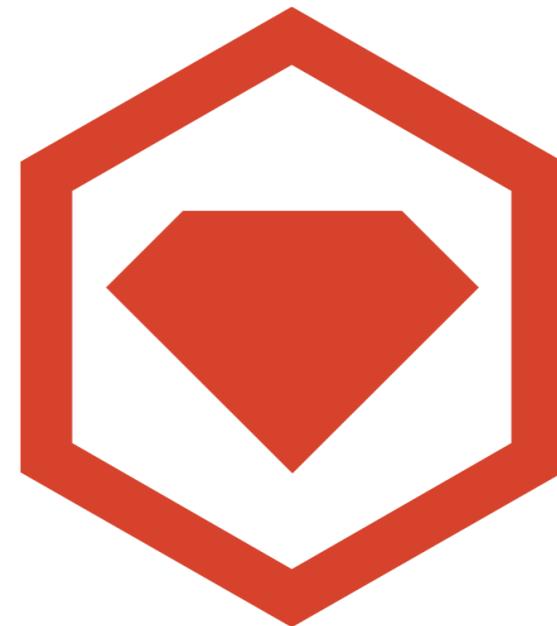
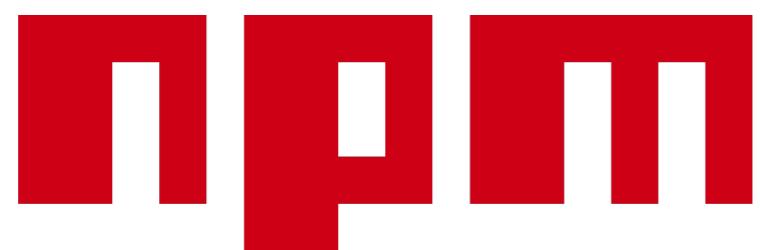


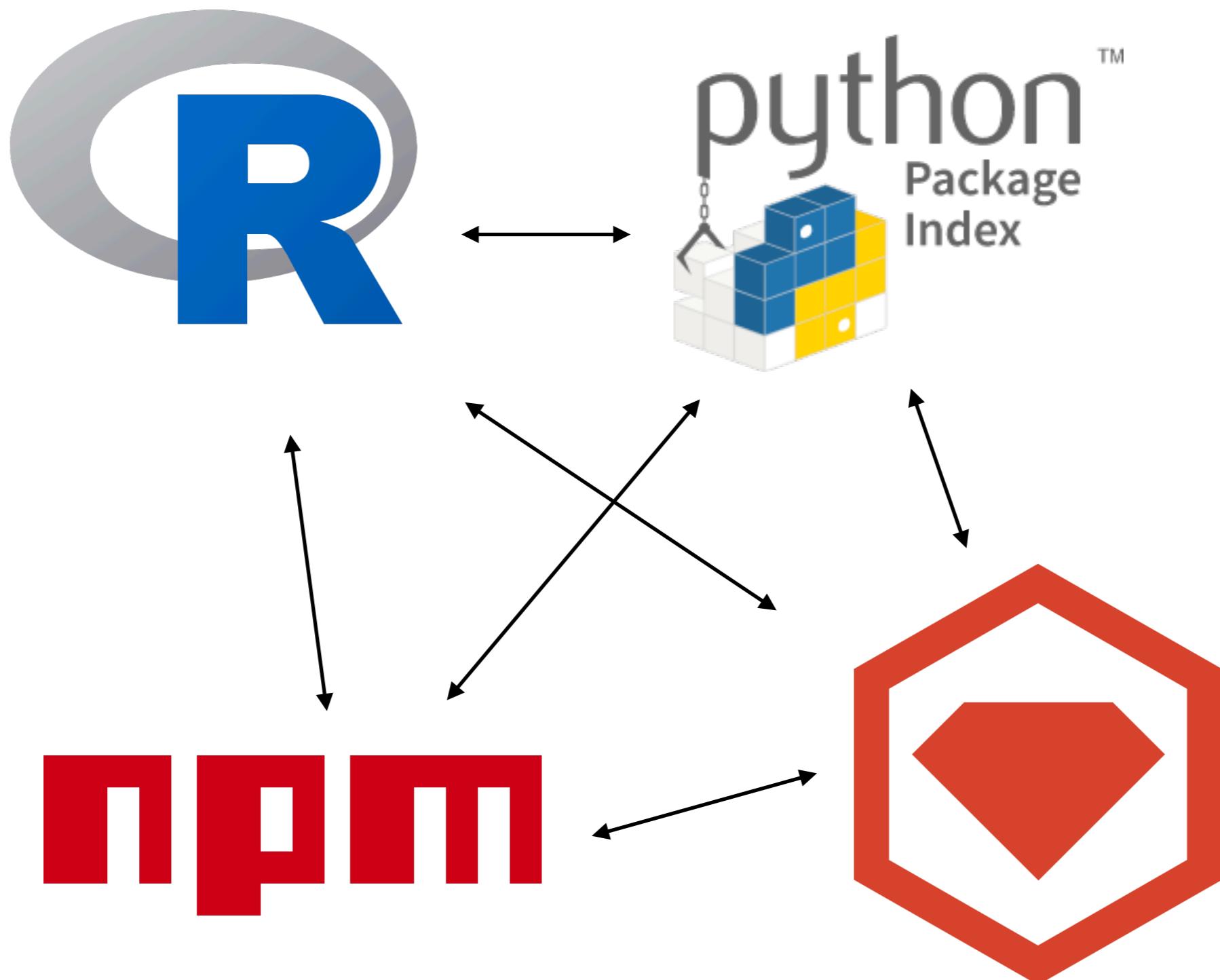
The CodeMeta Project

<https://codemeta.github.io>

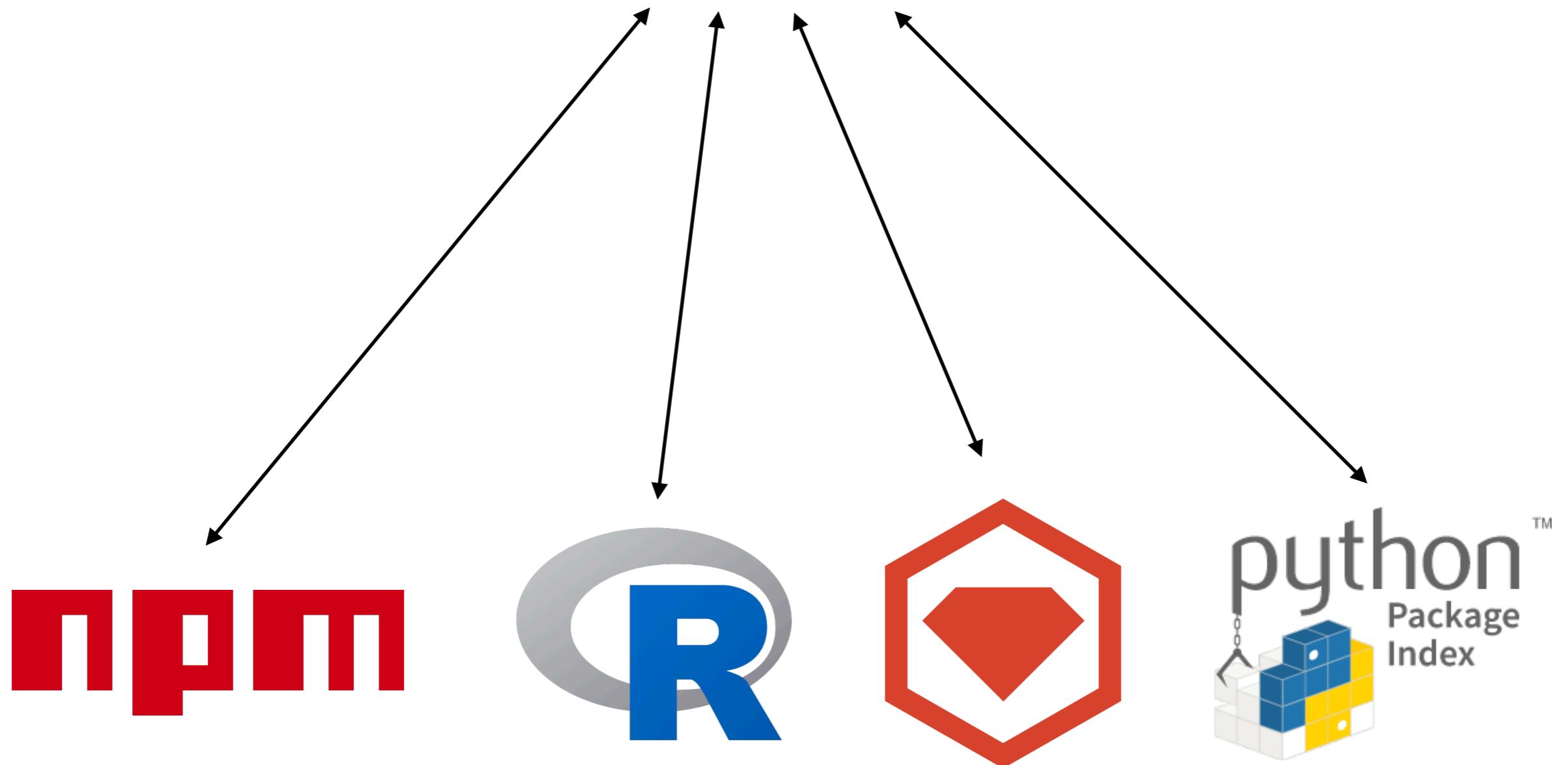




```
Package: codemtar
Type: Package
Title: Generate 'CodeMeta' Metadata for R Packages
Version: 0.1.8.9000
Description: The 'Codemeta' Project defines a 'JSON-LD' format for describing
software metadata, as detailed at <https://codemeta.github.io>. This package
provides utilities to generate, parse, and modify 'codemeta.json' files
automatically for R packages, as well as tools and examples for working with
'codemeta.json' 'JSON-LD' more generally.
License: GPL-3
URL: https://github.com/ropensci/codemtar, https://ropensci.github.io/codemtar
BugReports: https://github.com/ropensci/codemtar/issues
Depends: R (>= 3.0.0)
Imports:
  jsonlite (>= 1.6),
  git2r,
  ...
Suggests:
  testthat,
  jsonld,
  jsonvalidate,
  ...
Authors@R:
  c(person(given = "Carl",
            family = "Boettiger",
            role = c("aut", "cre", "cph"),
            email = "cboettig@gmail.com",
            comment = c(ORCID = "0000-0002-1642-628X")),
    person(given = "Maëlle",
            family = "Salmon",
            role = c("ctb", "aut"),
            comment = c(ORCID = "0000-0002-2815-0399")),
    ...
VignetteBuilder: knitr
X-schema.org-keywords: metadata, codemeta, ropensci, citation, credit, linked-data
X-schema.org-isPartOf: https://ropensci.org
```



CodeMeta



and many others...

Welcome to Schema.org

Schema.org is a collaborative, community activity with a mission to create, maintain, and promote schemas for structured data on the Internet, on web pages, in email messages, and beyond.

Schema.org vocabulary can be used with many different encodings, including RDFa, Microdata and JSON-LD. These vocabularies cover entities, relationships between entities and actions, and can easily be extended through a well-documented extension model. Over 10 million sites use Schema.org to markup their web pages and email messages. Many applications from Google, Microsoft, Pinterest, Yandex and others already use these vocabularies to power rich, extensible experiences.

Founded by Google, Microsoft, Yahoo and Yandex, Schema.org vocabularies are developed by an open [community](#) process, using the public-schemaorg@w3.org mailing list and through [GitHub](#).

A shared vocabulary makes it easier for webmasters and developers to decide on a schema and get the maximum benefit for their efforts. It is in this spirit that the founders, together with the larger community have come together – to provide a shared collection of schemas.

We invite you to [get started!](#)

View our blog at blog.schema.org or see [release history](#) for version 5.0.

About 315,000,000 results (0.54 seconds)

Recipes



Search

[Apple Pie by Grandma Ople](#)

Allrecipes

4.8 ★★★★★ (11K)
1 hr 30 min

Brown sugar, granny smith apples, double crust pie, all

[Apple Pie by Grandma Ople](#)
<https://www.allrecipes.com/recipe/113000/grandmas-holiday-apple-pie/>
★★★★★ Rating
Preheat oven to 375° F. In a large bowl, mix flour to form a mound. Slightly indent the center. Add butter and shortening. Cut in with a pastry cutter or two knives until the mixture resembles coarse meal. Add eggs, milk, and vanilla. Mix well. Add apples and cinnamon. Pour into a pie shell. Bake for 1 hour and 30 minutes.[Apple Pie Recipe | Taste of Home](#)
<https://www.tasteofhome.com/recipes/apple-pie/>
★★★★★ Rating
Directions. In a large bowl, toss apples with cinnamon, sugar, and nutmeg. Trim even with a sharp knife. Place in a pie shell. Dot with butter. Sprinkle with sugar. Bake at 375° F for 1 hour and 15 minutes.

Videos

[Home](#)[Guides](#)[Reference](#)[Tools](#)[Help](#)

GET ON GOOGLE

Understand the basics

Be mobile-friendly

Tell Google about changes

Make sure Google can index JavaScript

Improve AMP results

DEVELOP YOUR SEARCH PRESENCE

Understand search features

Enable rich results with structured data

Explore the search gallery

Understand how structured data works

Follow the guidelines

Try the structured data codelab

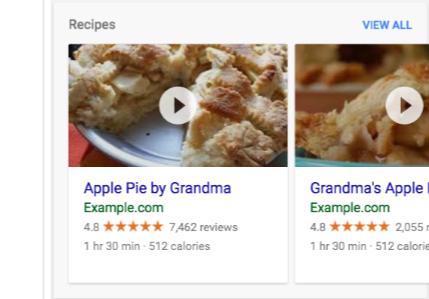
Build, test, and release structured data

Case studies

Enhance your podcast

Google Search also uses structured data to enable special search result features and enhancements. A recipe page with valid structured data is eligible to appear in a graphical search result, as shown here:

Search result feature



Equivalent structured data (trimmed for brevity)

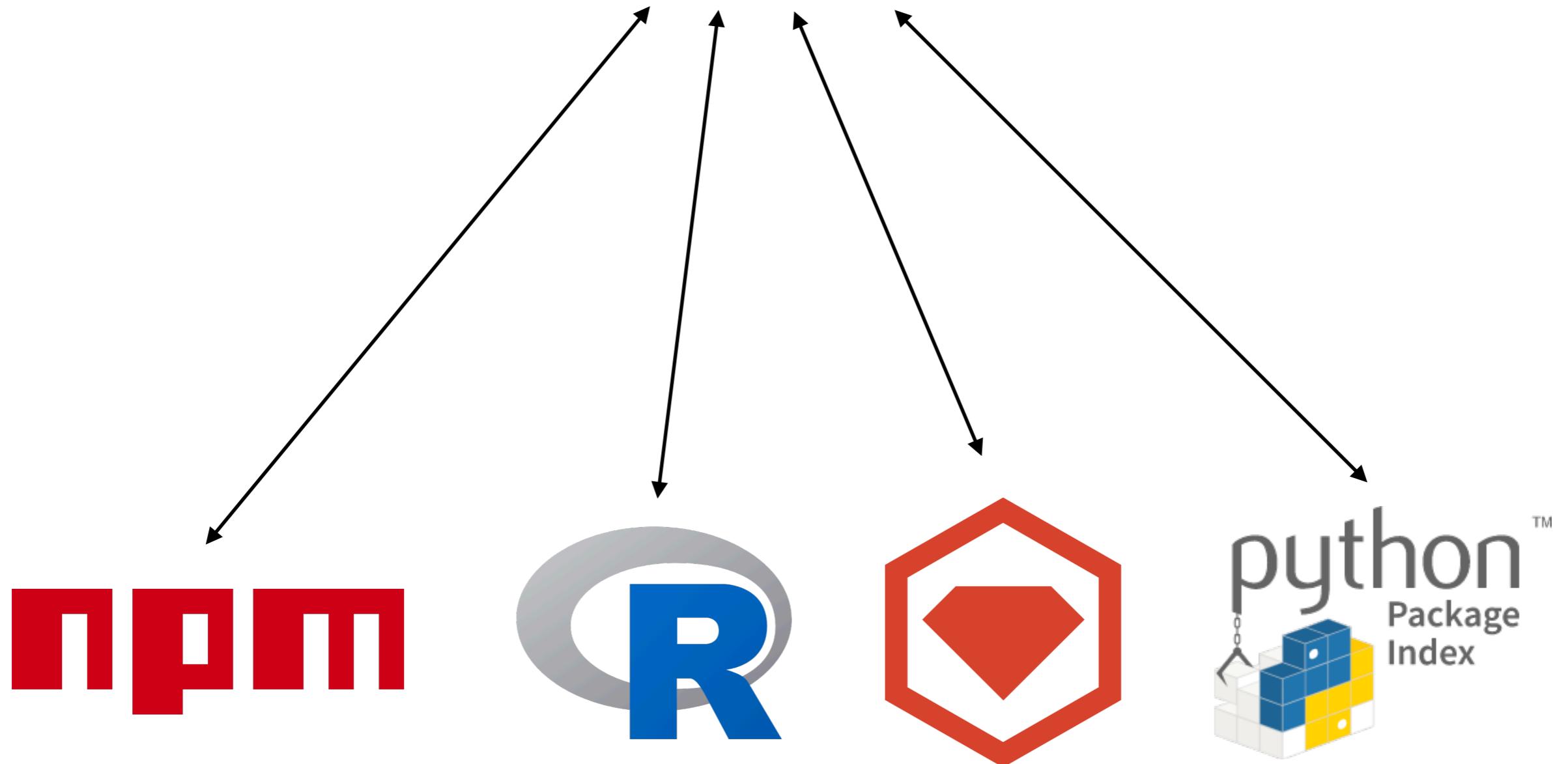
```

<html>
<head>
<title>Grandma's Holiday Apple Pie</title>
<script type="application/ld+json">
{
  "@context": "https://schema.org/",
  "@type": "Recipe",
  "name": "Grandma's Holiday Apple Pie",
  "author": "Elaine Smith",
  "image": "http://images.edge-general Mills.com/56459281-6",
  "description": "A classic apple pie.",
  "aggregateRating": {
    "@type": "AggregateRating",
    "ratingValue": "4",
    "reviewCount": "276",
    "bestRating": "5",
    "worstRating": "1"
  },
  "prepTime": "PT30M",
  "totalTime": "PT1H",
  "recipeYield": "8",
  "nutrition": {
    "@type": "NutritionInformation",
    "servingSize": "1 medium slice",
    "calories": "230 calories"
  }
}

```

schema.org

CodeMeta



and many others...

Crosswalks

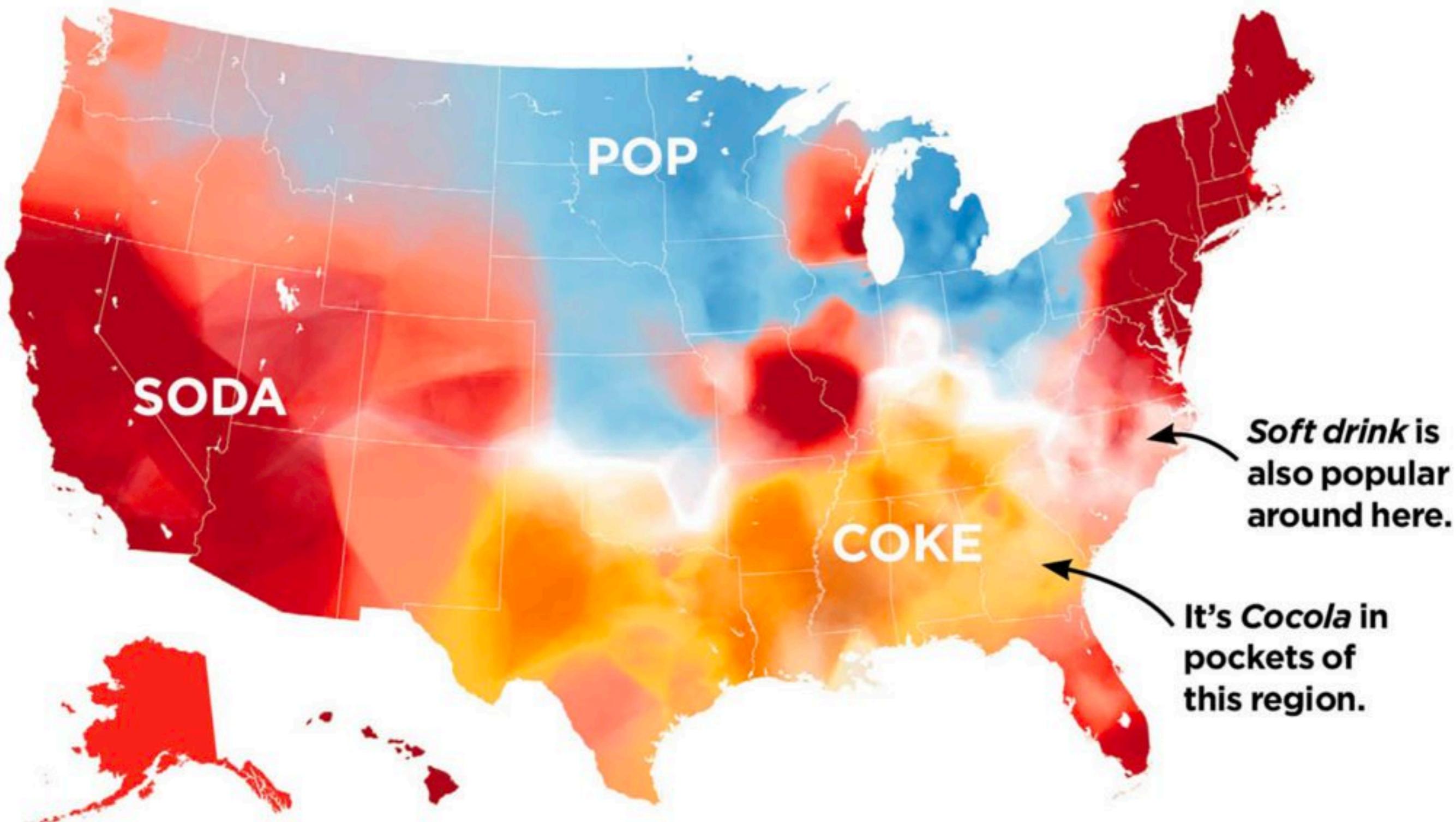
| | |
|---------------------------------|--------------------------|
| ASCL | Octave |
| Cabal | OntoSoft |
| Cargo | Perl Module Description |
| Citation File Format Core 1.0.2 | Python Distutils (PyPI) |
| DCAT | Python PKG-INFO |
| DOAP | R Package Description |
| DataCite | Ruby Gem |
| Debian Package | Software Discovery Index |
| Dublin Core | Software Ontology |
| Figshare | Trove Software Map |
| GitHub | Wikidata |
| ISO_19115-1 | Zenodo |
| Java (Maven) | codemeta-V1 |
| Julia Project | Yours here... |
| Leiningen | |
| NodeJS | |

Crosswalk for NodeJS package.json

The [npm](#) package manager for NodeJS [defines](#) software metadata using a [package.json](#) file.

| Property | NodeJS |
|-----------------------|---|
| codeRepository | repository |
| operatingSystem | os |
| processorRequirements | cpu / engines |
| softwareRequirements | dependencies / bundledDependencies / peerDependencies |
| author | author |
| contributor | contributor |

Crosswalks



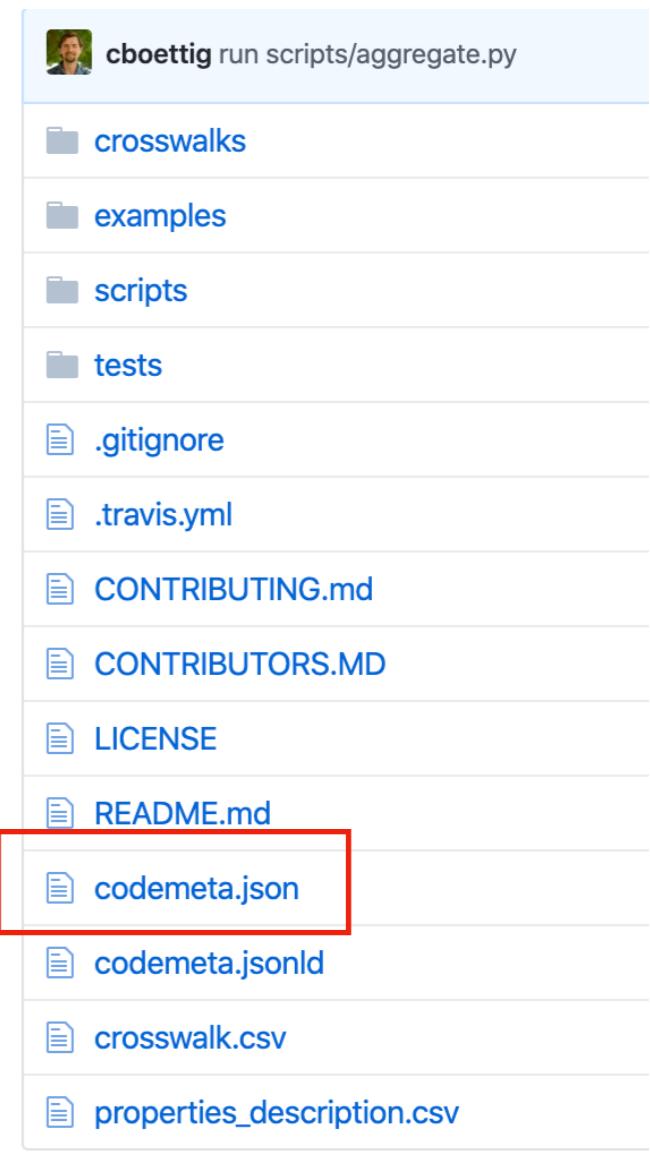
What terms are in codemeta?

- **Identification/reference:** name, description, datePublished, version, referencePublication*, developmentStatus*, etc.
- **Credit:** authors, maintainer, funder, etc.
- **Access:** codeRepository, license, version, downloadURL, etc.
- **Reproducibility:** operatingSystem, softwareRequirements, etc.
- Much more... (70 in total)

*codemeta term

Where to put codemeta.json

- Code repositories (i.e., GitHub)
- Software landing page
 - <head /> tags for crawlers
 - Visible link on landing page



CodeMeta

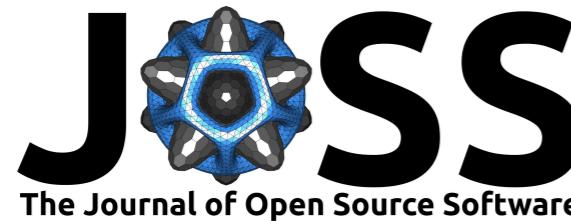
[gitter](#) [join chat](#) [build](#) [failing](#) [doi: 1](#)

CodeMeta contributors are creati

CodeMeta is to create a concept

repositories and organizations. Cu

Adoption



filename:codemeta.json Search

Sort: Best match ▾

804 code results

| Repositories | 0 |
|---------------|------|
| Code | 804 |
| Commits | 0 |
| Issues | 0 |
| Pull requests | 0 |
| Packages | 8K |
| Marketplace | 1K |
| Topics | 568K |
| Wikis | 0 |
| Users | 0 |

Languages

| | |
|------------|-----|
| JSON | 791 |
| R | 2 |
| JavaScript | 1 |

[Advanced search](#) [Cheat sheet](#)

804 code results

-  rocker-org/rocker-versioned
codemeta.json
 codemeta.json
JSON Last indexed on Jun 27, 2018
-  betteridiot/bamnostic
codemeta.json
 codemeta.json
JSON Last indexed on Jul 2
-  betteridiot/bamnostic
[docs/paper/codemeta.json](#)
 docs/paper/codemeta.json
JSON Last indexed on Jul 2
-  SimonGreenhill/phylogemetric
codemeta.json
 codemeta.json
JSON Last indexed on Jun 29, 2018
-  sergiud/SuiteSparse
[Mongoose/codemeta.json](#)
 Mongoose/codemeta.json
JSON Last indexed on Jan 26
-  ropenscilabs/rftdoi
codemeta.json
 codemeta.json
JSON Last indexed on Jul 12, 2018
-  zwzz2019/mqtt
[mosquitto-master/doc/joss-paper/codemeta.json](#)

Future

schema.org

CodeMeta





Search or jump to...



Pull requests Issues Trending Explore



codemeta / codemeta

Unwatch

Unstar

181

Code

Issues 24

Pull requests 2

Wiki

Releases 4

More

Minimal metadata schemas for science software and code, in JSON-LD codemeta.github.io[schema](#) [metadata](#) [json-ld](#) [science](#) [doi](#) [codemeta](#)

443 commits

4 branches

4 releases

26 contributors

Apache-2.0

Branch: master

[Create new file](#)[Find file](#)[Clone or download](#)

| | |
|--|---|
| cboettig run scripts/aggregate.py | Latest commit 2b329ce Oct 16, 2019 |
| crosswalks | Merge pull request #222 from ProgVal/cabal Oct 15, 2019 |
| examples | rename examples/codemeta-2.0.jsonld -> codemeta.json Jun 29, 2017 |
| scripts | Split crosswalk.csv into crosswalks/*.csv (#205) Nov 19, 2018 |
| tests | travis edits May 23, 2017 |
| .gitignore | add two new example files Apr 27, 2017 |
| .travis.yml | Split crosswalk.csv into crosswalks/*.csv (#205) Nov 19, 2018 |
| CONTRIBUTING.md | Split crosswalk.csv into crosswalks/*.csv (#205) Nov 19, 2018 |
| CONTRIBUTORS.MD | Added crosswalk between codemeta and ISO 19115-1 (#206) Dec 6, 2018 |
| LICENSE | Initial commit Sep 6, 2014 |
| README.md | Split crosswalk.csv into crosswalks/*.csv (#205) Nov 19, 2018 |
| codemeta.json | Use 'version' instead of 'softwareVersion' in codemeta.json (#201) Oct 29, 2018 |
| codemeta.jsonld | a few generic fields in crosswalk missed from context May 31, 2017 |
| crosswalk.csv | run scripts/aggregate.py Oct 16, 2019 |
| properties_description.csv | Split crosswalk.csv into crosswalks/*.csv (#205) Nov 19, 2018 |

Tools

- codemeta (R package), Carl Boettiger and Maëlle Salmon, others
- fidgit

Table 1 Varieties of software mentions in publications, from *Howison & Bullard (2015)*.

| Mention type | Count (n = 286) | Percentage (%) |
|-------------------------|-----------------|----------------|
| Cite to publication | 105 | 37 |
| Cite to user's manual | 6 | 2 |
| Cite to name or website | 15 | 5 |
| Instrument-like | 53 | 19 |
| URL in text | 13 | 5 |
| In-text name only | 90 | 31 |
| Not even name | 4 | 1 |