A bundler for javascript and friends. Packs many modules into a few bundled assets. Code Splitting allows for loading parts of the application on demand. Through "loaders", modules can be CommonJs, AMD, ES6 modules, CSS, Images, JSON, Coffeescript, LESS, ... and your custom stuff.   https://webpack.js.org

#webpack #javascript #module-bundler #loaders #plugins #build-tool #web #web-performance #compiler #javascript-compiler #commonjs #amd #esm #es6 #es2015 #javascript-modules

🕐 **10,302** commits	⑂ **42** branches	📦 **0** packages	🏷 **418** releases	👥 **580** contributors	⚖️ MIT

Branch: master ▾   New pull request   Find file   Clone or download ▾

👤 **sokra** Merge pull request #10303 from webpack/dependabot/npm_and_yarn/rimraf... ⋯   ✓ Latest commit 00e1277 4 hours ago

📁 .github	add Sponsor button	8 months ago
📁 benchmark	Merge tag 'v4.29.2' into next	12 months ago
📁 bin	refactor filesystem interfaces	8 months ago
📁 declarations	change DllPlugin entryOnly default to true	26 days ago
📁 examples	extend persistent-caching example with bigger module concatenation	last month
📁 hot	update eslint and lint-staged	6 months ago
📁 lib	Merge pull request #10288 from ngg/asmjs	5 days ago
📁 schemas	change DllPlugin entryOnly default to true	26 days ago
📁 setup	Setup.js Extra Variables	2 months ago
📁 test	do not evaluate constants in asm.js, fix IIFE mode detection	6 days ago
📁 tooling	Remove mkdirp package from devDependencies	15 days ago
📄 .editorconfig	improve prettier and lint config and performance	17 months ago
📄 .eslintignore	improve linting performance	5 months ago
📄 .eslintrc.js	update eslint and lint-staged	6 months ago
📄 .gitattributes	move images	7 months ago
📄 .gitignore	use separate directory for test	2 months ago
📄 .istanbul.yml	Just to be safer... only .github	2 years ago
📄 .npmrc	added file .npmrc --> package-lock=false	2 years ago
📄 .prettierignore	add deprecation testing for config test cases	last month
📄 .prettierrc.js	improve prettier and lint config and performance	17 months ago
📄 .travis.yml	Merge pull request #9780 from fscherwi/travis-ci-update-node	3 months ago
📄 CODE_OF_CONDUCT.md	Link to JS Foundation Code Of Conduct	8 months ago
📄 CONTRIBUTING.md	Replace HTTP URLs with HTTPS in CONTRIBUTING.md where supported	3 months ago
📄 LICENSE	Update copyright statement	3 years ago

📄 README.md	Fixed grammer	3 months ago
📄 SECURITY.md	docs: add `SECURITY.md`	2 years ago
📄 _SETUP.md	docs: review change	5 months ago
📄 appveyor.yml	Merge tag 'v4.41.2' into merge/v4.41.2	4 months ago
📄 azure-pipelines.yml	ci: azure-pipelines cache	3 months ago
📄 codecov.yml	add type coverage report	7 months ago
📄 declarations.d.ts	get rid of some hacks in declarations file	2 months ago
📄 open-bot.yaml	add "PR: webpack-4" label	last month
📄 package.json	add options default tests and fix library array handling	12 days ago
📄 tsconfig.json	add all declarations files and folder	16 months ago
📄 yarn.lock	Merge pull request #10303 from webpack/dependabot/npm_and_yarn/rimraf…	4 hours ago

📖 README.md
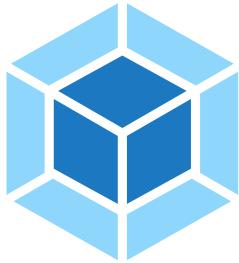
`npm` `v4.41.5`

`node` `>=6.11.5` `dependencies` `up to date` `build` `passing` `build` `passing` `Azure Pipelines` `succeeded` `coverage` `95%` `license scan` `failing`
`PRs` `welcome`

`semver stability of 4.41.5` `97%` `downloads` `33M/month` `install size` `17.5 MB` `backers` `1058` `sponsors` `412` `contributors` `415` `chat` `on gitter`

webpack

webpack is a module bundler. Its main purpose is to bundle JavaScript files for usage in a browser, yet it is also capable of transforming, bundling, or packaging just about any resource or asset.

Table of Contents

Install

Install with npm:

```
npm install --save-dev webpack
```

Install with yarn:

```
yarn add webpack --dev
```

Introduction

webpack is a bundler for modules. The main purpose is to bundle JavaScript files for usage in a browser, yet it is also capable of transforming, bundling, or packaging just about any resource or asset.

TL;DR

- Bundles ES Modules, CommonJS, and AMD modules (even combined).
- Can create a single bundle or multiple chunks that are asynchronously loaded at runtime (to reduce initial loading time).
- Dependencies are resolved during compilation, reducing the runtime size.
- Loaders can preprocess files while compiling, e.g. TypeScript to JavaScript, Handlebars strings to compiled functions, images to Base64, etc.
- Highly modular plugin system to do whatever else your application requires.

Get Started

Check out webpack's quick **Get Started** guide and the other guides.

Browser Compatibility

webpack supports all browsers that are ES5-compliant (IE8 and below are not supported). webpack also needs `Promise` for `import()` and `require.ensure()`. If you want to support older browsers, you will need to load a polyfill before using these expressions.

Concepts

Plugins

webpack has a rich plugin interface. Most of the features within webpack itself use this plugin interface. This makes webpack very **flexible**.

Name	Status	Install Size	Description
mini-css-extract-plugin	npm v0.9.0	install size 2.75 MB	Extracts CSS into separate files. It creates a CSS file per JS file which contains CSS.
compression-webpack-plugin	npm v3.1.0	install size 3.74 MB	Prepares compressed versions of assets to serve them with Content-Encoding
i18n-webpack-plugin	npm v1.0.0	install size 19.1 kB	Adds i18n support to your bundles
html-webpack-plugin	npm v3.2.0	install size 5.05 MB	Simplifies creation of HTML files (`index.html`) to serve your bundles

Name	Status	Install Size	Description
extract-text-webpack-plugin	npm v3.0.2	install size 4.94 MB	Extract text from a bundle, or bundles, into a separate file

Loaders

webpack enables the use of loaders to preprocess files. This allows you to bundle **any static resource** way beyond JavaScript. You can easily write your own loaders using Node.js.

Loaders are activated by using `loadername!` prefixes in `require()` statements, or are automatically applied via regex from your webpack configuration.
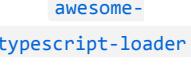
Files

Name	Status	Install Size	Description
raw-loader	npm v4.0.0	install size 1.83 MB	Loads raw content of a file (utf-8)
val-loader	npm v2.1.0	install size 1.86 MB	Executes code as module and considers exports as JS code
url-loader	npm v3.0.0	install size 1.92 MB	Works like the file loader, but can return a Data Url if the file is smaller than a limit
file-loader	npm v5.0.2	install size 1.85 MB	Emits the file into the output folder and returns the (relative) url

JSON

Name	Status	Install Size	Description
	npm v0.5.7	install size 7.56 kB	Loads a JSON file (included by default)
{JSON:5,}	npm v3.0.0	install size 2.05 MB	Loads and transpiles a JSON 5 file
	npm v0.1.0	install size 415 kB	Loads and transpiles a CSON file

Transpiling

Name	Status	Install Size	Description
`<script>`	npm v0.7.2	install size 8.78 kB	Executes a JavaScript file once in global context (like in script tag), `require()` s are not parsed
BABEL	npm v8.0.6	install size 459 kB	Loads ES2015+ code and transpiles to ES5 using Babel
tc	npm v0.6.3	install size 3.89 MB	Loads ES2015+ code and transpiles to ES5 using Traceur
TypeScript	npm v6.2.1	install size 1.17 MB	Loads TypeScript like JavaScript
`awesome-typescript-loader`	npm v5.2.1	install size 6.48 MB	Awesome TypeScript loader for webpack
	npm v0.9.0	install size 164 kB	Loads CoffeeScript like JavaScript

Templating

Name	Status	Install Size	Description
	npm v0.5.5	install size 4.49 MB	Exports HTML as string, requires references to static resources
	npm v2.4.0	install size 262 kB	Loads Pug templates and returns a function
	npm v5.1.0	install size 338 kB	Compiles Markdown to HTML
	npm v1.0.2	install size 3.18 MB	Loads and transforms a HTML file using PostHTML
	npm v1.7.1	install size 267 kB	Compiles Handlebars to HTML

Styling

Name	Status	Install Size	Description
<style>	npm v1.1.3	install size 1.89 MB	Add exports of a module as style to DOM
	npm v3.4.2	install size 3.79 MB	Loads CSS file with resolved imports and returns CSS code
	npm v5.0.0	install size 305 kB	Loads and compiles a LESS file
	npm v8.0.2	install size 2.30 MB	Loads and compiles a Sass/SCSS file
	npm v3.0.2	install size 386 kB	Loads and compiles a Stylus file
	npm v3.0.0	install size 3.97 MB	Loads and transforms a CSS/SSS file using PostCSS

Linting & Testing

Name	Status	Install Size	Description
	npm v4.0.1	install size 3.85 MB	Tests with mocha (Browser/NodeJS)
	npm v3.0.3	install size 2.38 MB	PreLoader for linting code using ESLint
	npm v0.8.4	install size 1.22 MB	PreLoader for linting code using JSHint

Frameworks

Name	Status	Install Size	Description
	npm v15.8.3	install size 12.5 MB	Loads and compiles Vue Components
	npm v2.0.3	install size 8.69 MB	Process HTML & CSS with preprocessor of choice and `require()` Web Components like first-class modules

Name	Status	Install Size	Description
A	npm v0.6.2	install size 168 kB	Loads and compiles Angular 2 Components
RIOT	npm v2.1.0	install size 166 kB	Riot official webpack loader

Performance

webpack uses async I/O and has multiple caching levels. This makes webpack fast and incredibly **fast** on incremental compilations.

Module Formats

webpack supports ES2015+, CommonJS and AMD modules **out of the box**. It performs clever static analysis on the AST of your code. It even has an evaluation engine to evaluate simple expressions. This allows you to **support most existing libraries** out of the box.

Code Splitting

webpack allows you to split your codebase into multiple chunks. Chunks are loaded asynchronously at runtime. This reduces the initial loading time.

Optimizations

webpack can do many optimizations to **reduce the output size of your JavaScript** by deduplicating frequently used modules, minifying, and giving you full control of what is loaded initially and what is loaded at runtime through code splitting. It can also make your code chunks **cache friendly** by using hashes.

Contributing

We want contributing to webpack to be fun, enjoyable, and educational for anyone, and everyone. We have a vibrant ecosystem that spans beyond this single repo. We welcome you to check out any of the repositories in our organization or webpack-contrib organization which houses all of our loaders and plugins.

Contributions go far beyond pull requests and commits. Although we love giving you the opportunity to put your stamp on webpack, we also are thrilled to receive a variety of other contributions including:

- Documentation updates, enhancements, designs, or bugfixes
- Spelling or grammar fixes
- README.md corrections or redesigns
- Adding unit, or functional tests
- Triaging GitHub issues -- especially determining whether an issue still persists or is reproducible.
- Searching #webpack on twitter and helping someone else who needs help
- Teaching others how to contribute to one of the many webpack's repos!
- Blogging, speaking about, or creating tutorials about one of webpack's many features.
- Helping others in our webpack gitter channel.

If you are worried or don't know where to start, you can **always** reach out to Sean Larkin (@TheLarkInn) on Twitter or simply submit an issue and a maintainer can help give you guidance!

We have also started a series on our Medium Publication called The Contributor's Guide to webpack. We welcome you to read it and post any questions or responses if you still need help.

Looking to speak about webpack? We'd **love** to review your talk abstract/CFP! You can email it to webpack [at] opencollective [dot] com and we can give pointers or tips!!!

Creating your own plugins and loaders

If you create a loader or plugin, we would <3 for you to open source it, and put it on npm. We follow the `x-loader`, `x-webpack-plugin` naming convention.

Support

We consider webpack to be a low-level tool used not only individually but also layered beneath other awesome tools. Because of its flexibility, webpack isn't always the *easiest* entry-level solution, however we do believe it is the most powerful. That said, we're always looking for ways to improve and simplify the tool without compromising functionality. If you have any ideas on ways to accomplish this, we're all ears!

If you're just getting started, take a look at our new docs and concepts page. This has a high level overview that is great for beginners!!

Looking for webpack 1 docs? Please check out the old wiki, but note that this deprecated version is no longer supported.

If you want to discuss something or just need help, here is our Gitter room where there are always individuals looking to help out!

If you are still having difficulty, we would love for you to post a question to StackOverflow with the webpack tag. It is much easier to answer questions that include your webpack.config.js and relevant files! So if you can provide them, we'd be extremely grateful (and more likely to help you find the answer!)

If you are twitter savvy you can tweet #webpack with your question and someone should be able to reach out and help also.

If you have discovered a 🐜 or have a feature suggestion, feel free to create an issue on Github.

License

Core Team

Tobias Koppers

Core

Founder of webpack

Johannes Ewald

Loaders & Plugins

Early adopter of webpack
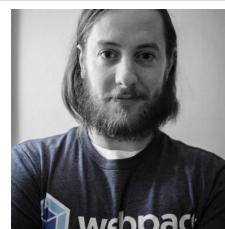
Sean T. Larkin

Public Relations

Founder of the core team

Kees Kluskens

Development

Sponsor

CODE YELLOW

Sponsoring

Most of the core team members, webpack contributors and contributors in the ecosystem do this open source work in their free time. If you use webpack for a serious task, and you'd like us to invest more time on it, please donate. This project increases your income/productivity too. It makes development and applications faster and it reduces the required bandwidth.

This is how we use the donations:

- Allow the core team to work on webpack
- Thank contributors if they invested a large amount of time in contributing
- Support projects in the ecosystem that are of great value for users
- Support projects that are voted most (work in progress)
- Infrastructure cost
- Fees for money handling

Premium Partners
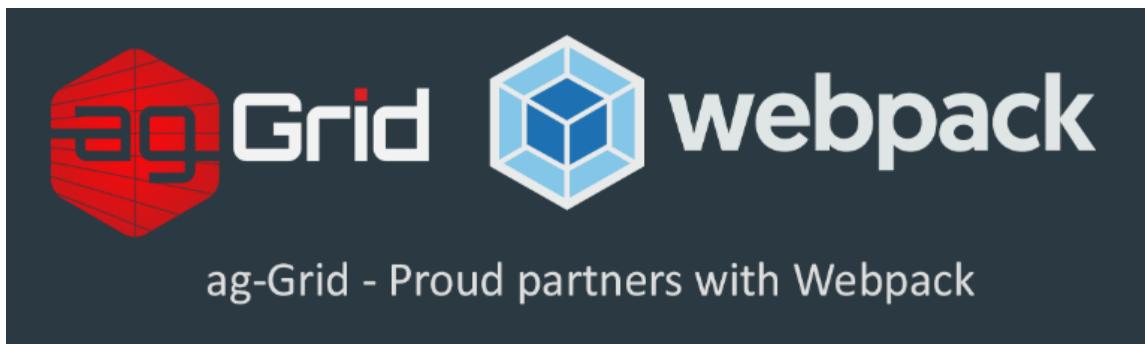
Other Backers and Sponsors

Before we started using OpenCollective, donations were made anonymously. Now that we have made the switch, we would like to acknowledge these sponsors (and the ones who continue to donate using OpenCollective). If we've missed someone, please send us a PR, and we'll add you to this list.

Google Angular Team, Architects.io, MoonMail MONEI

## Gold Sponsors

Become a gold sponsor and get your logo on our README on Github with a link to your site.

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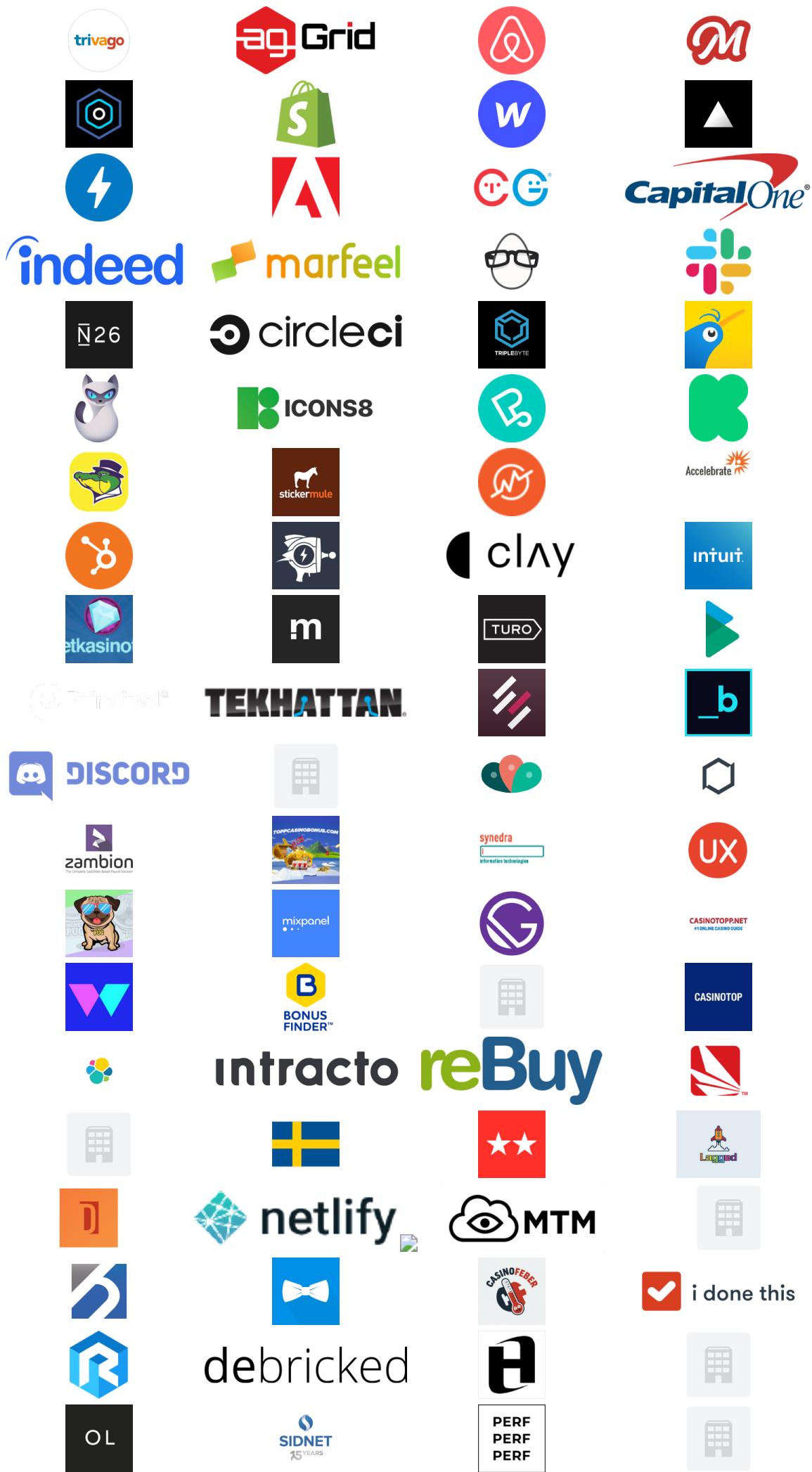
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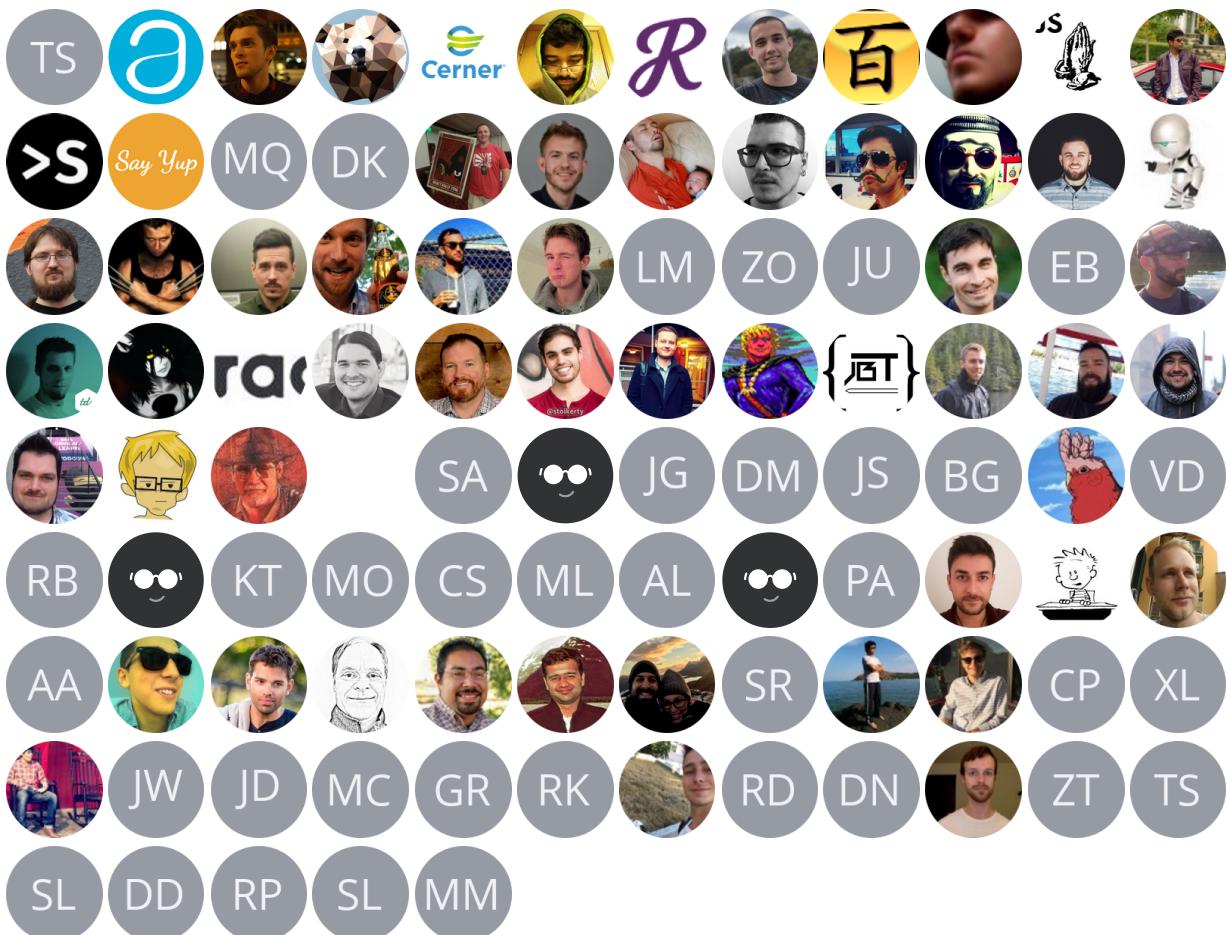
Special Thanks to

(In chronological order)

- @google for Google Web Toolkit (GWT), which aims to compile Java to JavaScript. It features a similar Code Splitting as webpack.
- @medikoo for modules-webmake, which is a similar project. webpack was born because I wanted Code Splitting for modules-webmake. Interestingly the Code Splitting issue is still open (thanks also to @Phoscur for the discussion).
- @substack for browserify, which is a similar project and source for many ideas.
- @jrburke for require.js, which is a similar project and source for many ideas.
- @defunctzombie for the browser-field spec, which makes modules available for node.js, browserify and webpack.

- Every early webpack user, which contributed to webpack by writing issues or PRs. You influenced the direction...
- @shama, @jhnns and @sokra for maintaining this project
- Everyone who has written a loader for webpack. You are the ecosystem...
- Everyone I forgot to mention here, but also influenced webpack.