

Why NodeJS?

4. Jahrgang

Companies using NodeJS in Production

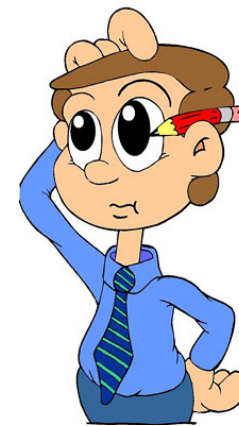
- Netflix
- Uber
- Walmart
- PayPal
- eBay
- LinkedIn
- Groupon
- Trello
- NASA
- Yahoo

See: <https://www.netguru.co/blog/top-companies-used-nodejs-production>

Benefits

- Uses an event-driven, non-blocking I/O model
- Node.js' package ecosystem, npm, is the largest ecosystem of open source libraries in the world
- exceptional scalability and a good ratio between product performance and developer effort

What does that mean?



Non-blocking I/O

- I/O happens all the time
 - reading/writing to a database
 - changing files on FS
 - http request to an external server
(e.g. fetching coordinates for user's location)
- I/O takes time
- Non-blocking → while one user is requesting a URL from Google, other users can request data from database, etc.

Blocking vs. Non-blocking

blocking.js

```
1 var getUserSync = require('./getUserSync');
2
3 var user1 = getUserSync('123');
4 console.log('user1', user1);
5
6 var user2 = getUserSync('321');
7 console.log('user2', user2);
8
9 var sum = 1 + 2;
10 console.log('The sum is:', sum);
11
```

Waiting on user1

Printing user1

Waiting on user2

Printing user2

Printing sum

non-blocking.js

```
1 var getUser = require('./getUser');
2
3 getUser('123', function(user1) {
4   console.log('user1', user1);
5 });
6
7 getUser('321', function (user2) {
8   console.log('user2', user2);
9 });
10
11 var sum = 1 + 2;
12 console.log('The sum is:', sum);
13
```

Starting getUser for user1

Starting getUser for user2

Printing sum

Printing user1

Printing user2

npm

- Huge amount of ready to use packages
 - Big community
 - Solutions for common problems
(e.g. validating objects, creating servers, sockets, ...)
- we can focus on solving specific issues related to our application

See: <https://www.npmjs.com>