



# **RISINGSTACK TRAININGS**

In-person Node.js & Microservices Trainings in Europe - 2017

## ABOUT RISINGSTACK

RisingStack provides professional development, training and consulting services from the early days of Node. So far, we helped companies like Lufthansa, Cisco & LogMeIn to thrive with our favorite technology.

Our engineers spent the previous 3 years with writing [books](#), long-form tutorials & holding trainings. Our experts have written [more than 150 articles](#) on the topics of [Node.js](#), [Microservices & Security](#).

Our blog is one of the main source of knowledge Node developers turn to in trouble, this is why more than 150.000 engineers read our content monthly.

RisingStack has been named as one of the leading Node.js companies of the Battery Open-Source Software Index in TechCrunch's "[Tracking the explosive growth of open-source software](#)" analysis. We're also part of the Node Foundation, and contributors to the Node.js Core.

THE BATTERY OPEN-SOURCE SOFTWARE INDEX				
Rank	Project Name	Overall Project Rating	Category	Sample of Related Companies
1	Linux	100.00	IT Operations	Red Hat, Ubuntu
2	Git	31.10	DevOps	GitHub, GitLab
3	MySQL	25.23	Data & Analytics	Oracle
4	Node.js	22.75	DevOps	NodeSource, RisingStack
5	Docker	22.61	DevOps	Docker
6	Hadoop	16.19	Data &	Cloudera, Hortonworks

## EXPERTS TRUST RISINGSTACK



*"It's easy to believe you know enough about microservices to get started. However, the subject is both complex and broad. To better navigate the challenges I attended RisingStack's comprehensive microservices course in LA. I highly recommend it!"*

**Carlos Justiniano, Chief Architect at Flywheel Sports.**

# TRAININGS TO ATTEND

These 2 day long, in-person trainings allow you to significantly improve your Node.js knowledge & get expert feedback during live coding sessions.

## 1, NODE.JS FUNDAMENTALS

**This course is for developers who..**

- want to understand Node.js better,
- want to try out a new and quickly spreading back-end framework,
- want hands-on experience in building servers with Node.js.

This course is recommended for engineering teams considering to introduce Node.js in their organization the right way.

### Prerequisites

- **No prior experience with Node.js is required** - we will cover everything you need to get started.
- **Prior Javascript experience is a must** - you will understand the coding part a lot easier, as we won't go into the basics of Javascript.

### AGENDA:

#### 1. Event Loop, non-blocking I/O

The fundamental of using Node.js is understanding its single-threaded asynchronous nature. You will start with learning about the Event loop and V8's way of handling I/O operations.

#### 2. Callbacks, Promises, Async-Await

Next, we will deep dive into using what we have learned in the previous section and look at how to deal with asynchronous code in Node.js.

#### 3. Coding Session

You will have a chance to familiarize yourself with the Node.js runtime and libraries in a 2 hours long, supervised, hands-on session. Starting from a Hello, World! application, you will get to the point where you are ready to handle HTTP traffic.

#### 4. Project Skeleton

With your newly acquired knowledge, you will build a REST API project skeleton using Express. This section will help you get started with building real-life applications.

#### 5. Testing

You'll learn how to test HTTP endpoints and write unit tests using sinon, mocha, and chai. We will also discuss what and how should be tested, and we'll take a look at some testing gotchas in Node.js.

#### 6. Debugging

Now that you can detect bugs, we will take some time to get rid of them while we explore the capabilities of Node Inspector, the built in graphic debugger of Node.js.

#### 7. Best Practices

We will go through some advice to make your development experience as smooth as possible and also discuss basic security measures that should be taken into account when creating your services. We will also take a look at proper ways of logging.

#### This training is available in..

- [Vienna \(September 21-22\)](#)
- [Barcelona \(October 5-6\)](#)
- [Berlin \(October 12-13\)](#)
- [London \(October 19-20\)](#)
- [Dublin \(October 26-27\)](#)
- [Zurich \(November 2-3\)](#)
- [Paris \(November 9-10\)](#)
- [Amsterdam \(November 9-10\)](#)

#### Prices:

Standard ticket: **€1,100**

Two tickets: **€1000 each**

Three or more tickets: **€900 each**

## 2, BUILDING MICROSERVICES WITH NODE.JS

### This course is for developers who..

- want hands-on experience in building microservices with Node.js,
- aim to understand the challenges associated with microservices,
- want to learn how to test, debug & monitor a microservices app.

This course is recommended for engineering teams considering to introduce Microservices in their organization the right way.

### Prerequisites

- **Prior Javascript and Node.js experience is nice to have** so you can understand the coding part a lot easier, as we won't go into the basics.
- **No prior experience with microservices is required** - we will cover everything you need to get started.

### AGENDA:

#### 1. Microservice Architecture in the Company

We will compare monolithic and microservice systems while taking a look at organizational changes needed to make the transition from the first to the latter. We'll also learn how to decide whether you should move or not in the first place.

#### 2. Services and Teams

We will define what micro means in Microservices and how to define service boundaries. We'll also take a look at required technologies and techniques, such as service discovery, automation, proper documentation and transport layers.

#### 3. Moving to Microservices

You'll learn the evolutionary way of migration from a monolithic system to the microservices architecture via proxy and API gateway approaches. We will also take a look at some security challenges raised by the transition.

#### **4. Architectural Patterns in Distributed Systems**

You'll learn about some patterns that may come useful later, such as CQRS, Event-sourcing, Event driven microservices, the Data Pump model and more. We'll also talk about anti-patterns that may feel convenient but should be avoided.

#### **5. Caching**

Why is caching especially important when you have several pieces of software communicating over different transport layers? We'll tell you the answer in this module, while we take a look at several approaches and implementations of inter-service caching.

#### **6. Reliability in Microservices**

We will discuss how much reliability and errors can cost you and your company, and what you can do to mitigate the effects of inevitable failures or even profit on the fact that things can and will go wrong.

#### **7. Testing Microservices**

The way to test an architecture where your logic lives on several different machines and the cost of local development.

#### **8. Debugging and Monitoring Microservices**

Logging in a distributed system is a lot more challenging than in a single process application. You need to introduce distributed tracing to track down errors that propagate through several HTTP calls. We will discuss how to use OpenTracing, Jaeger and Prometheus to be always up to date about the state of your system.

#### **9. Frameworks for Node.js microservices**

We'll learn what are Seneca, Hemera, and Hydra, and what are the benefits and drawbacks of using them.

**This training is available in..**

- [Vienna \(October 5-6\)](#)
- [Dublin \(October 12-13\)](#)
- [Zurich \(October 19-20\)](#)
- [Berlin \(October 26-27\)](#)
- [Barcelona \(November 2-3\)](#)
- [London \(November 9-10\)](#)
- [Paris \(November 23-24\)](#)
- [Amsterdam \(November 30 - December 1\)](#)
- [Lisbon \(December 7-8\)](#)

**Prices:**

Standard ticket: **€1400**

Two tickets: **€1200 each**

Three or more tickets: **€1000 each**

### **3, SECURING NODE.JS APPLICATIONS**

**This course is for developers who..**

- want to understand security in Node.js better,
- want to learn up-to-date security best practices,
- would like to improve the security standards in their team.

**Prerequisites**

**You will get a lot more out of this course if:**

- You have a basic understanding of Node.js.
- You have or want to build an app using Express or Koa.

**AGENDA:**

#### **1. Injection**

Injection attacks are among the most common attack vectors - they include SQL Injections, Cross Site Scripting (XSS) or trusted third-party sites. In this section, you will learn what these attacks are, and how you can defend your applications against them.

## **2. Authentication**

Learn how you can properly authenticate users, how to handle cookies, how to store passwords and sessions.

## **3. Cross Site Request Forgery**

In this section, we will go through what CSRF is, and how attackers might try to exploit it. You will learn how to defend your applications against them.

## **4. Insecure Dependencies**

npm has hundreds of thousands of modules. Sometimes, with an ecosystem this big, security vulnerabilities will be introduced to certain modules. You will learn how you can monitor your dependencies.

## **5. Default Configurations**

Default configurations are sometimes not security-minded. They focus on the ease of use, therefore often leaving doors open for attackers. We will take a look at how you can secure your deployments with better configurations.

## **6. Logging**

It is crucial to have a detailed audit log of what happens in your systems. With the help of them, you can investigate issues. However, logging has its danger sources as well, so you need to learn how to be security-minded when developing Node applications.

## **7. The Human Factor**

95% of security problems are the result of some human error, like sending passwords in emails or using the same user for multiple actual users. In this part, we will go through some actionable items to make your company more secure.

This training is available in..

- [Vienna \(September 28-29\)](#)
- [Dublin \(October 5-6\)](#)
- [Amsterdam \(October 12-13\)](#)
- [Paris \(October 19-20\)](#)
- [Barcelona \(October 26-27\)](#)
- [Berlin \(November 9-10\)](#)
- [Zurich \(November 16-17\)](#)
- [London \(November 23-24\)](#)
- [Lisbon \(November 30 - December 1\)](#)

### Prices:

Standard ticket: €1400

Two tickets: €1200 each

Three or more tickets: €1000 each

## HOW TO BUY TICKETS

You can contact **Csaba Balogh** ([csaba.balogh@risingstack.com](mailto:csaba.balogh@risingstack.com)), our sales representative who will be glad to help you with any questions or concerns you might have, or you can buy tickets on our payment platform directly

### Node.js Fundamentals - Tickets:

[Vienna \(Sep 21-22\)](#); [Barcelona \(Oct 5-6\)](#); [Berlin \(Oct 12-13\)](#);  
[London \(Oct 19-20\)](#); [Dublin \(Oct 26-27\)](#); [Zurich \(Nov 2-3\)](#);  
[Paris \(Nov 9-10\)](#); [Amsterdam \(Nov 9-10\)](#);

### Building Microservices with Node.js - Tickets:

[Vienna \(Oct 5-6\)](#); [Dublin \(Oct 12-13\)](#); [Zurich \(Oct 19-20\)](#);  
[Berlin \(Oct 26-27\)](#); [Barcelona \(Nov 2-3\)](#); [London \(Nov 9-10\)](#);  
[Paris \(Nov 23-24\)](#); [Amsterdam \(Nov 30 - Dec 1\)](#); [Lisbon \(Dec 7-8\)](#);

### Securing Node.js Applications - Tickets:

[Vienna \(Sept 28-29\)](#); [Dublin \(Oct 5-6\)](#); [Amsterdam \(Oct 12-13\)](#);  
[Paris \(Oct 19-20\)](#); [Barcelona \(Oct 26-27\)](#); [Berlin \(Nov 9-10\)](#);  
[Zurich \(Nov 16-17\)](#); [London \(Nov 23-24\)](#); [Lisbon \(Nov 30 - Dec 1\)](#);

## MEET OUR INSTRUCTORS



**Peter Czibik** joined RisingStack as one of the first team members. He has been helping companies adopt Node.js by holding training and consulting sessions for them.

To get a sense of Peter's knowledge, check out some of his tutorials:

- [Getting Node.js Testing and TDD Right](#)
- [The Beginner's Guide to Terminal for Node.js Development](#)
- [Using databases with Node.js](#)



**Tamas Kadlecik** has engineered some of the most complex parts of our microservice architecture gaining a lot of experience in designing such systems.

Tamas is a very popular author on our blog, check out his work:

- [Understanding the Node.js Event Loop](#)
- [Mastering Async Await in Node.js](#)
- [Handling 100's of GigaBytes of Data with Node.js and MySQL](#)



**Gergely Nemeth** is one of the founders of RisingStack and a long-time Node.js user. He is very keen on security & is a regular speaker at conferences & meetups.

Check out some of Gergely's work:

- [Node.js Security Checklist](#)
- [Threat Modelling For Node.js Applications](#)
- [Surviving Web Security Using Node.js](#)