

Friedhofstr. 38, 73650 Winterbach
+49 151 56 17 95 55

michael.berger@berger-engineering.io
<https://www.berger-engineering.io>

Michael Berger

Freelance Expert

Software Engineer · Trainer · Open Source · Frontend · Backend



Intro

Michael Berger is a freelance expert for scalable and high-performance web applications. He has many years of experience in working with international, agile, high-performance teams. He attaches great importance to **scalable software architectures, testing and performance**.

As a **lead developer**, he has already managed numerous projects and supported junior developers as a mentor. He attaches great importance to **delivering sustainable added value** through knowledge transfer. In numerous workshops, he has proven that he can optimally combine theory and practice.

Languages

Deutsch (Muttersprache)
Englisch (C1)

Höchster Bildungsabschluss

Master of Science

Date of Birth

08.12.1990



LinkedIn



GitHub



Twitter

Trainer

10/22 - today <https://push-based.io/team>

Trainer at Push Based

Description

Push Based is a consultancy specializing in performance optimization of web-based applications.

Implementation of enterprise workshops as a trainer.

Workshops

- Angular Adavend
- Angular Architecture and State management
- RxJs Basic and Advanced
- Reactive Architecture
- Angular and Web Performance

08/22 - today <https://workshops.de/profiles/michael-berger>

Trainer at workshops.de

Description

Workshops.de is a leading provider of workshops on numerous web topics in the DACH region. Implementation of enterprise workshops as a trainer.

Workshops

- Angular Basics
- Angular Advanced
- RxJs Basics and Advanced

Project History

Kassenärztliche Vereinigung Baden-Württemberg

06/24 - today Frontend Software Engineer/ Frontend-Architekt

Modernization of a internal style guide application

Description

Various component libraries are developed within the organization. Similar to Angular Material, a “living” style guide is being developed.

The aim of this project was to modernize the styleguide-app and add features.

Tasks (extract)

- Modernize styleguide based on the current Angular Material Styleguide
- Evaluate alternative tools
- Support and further development of internal libraries
- Create a concept for versioning

Angular · Angular Material · Nx · RxJs · Cypress · Storybook · Azure · Git · Jira · TypeScript · JavaScript · TDD

04/24 - today Frontend Software Engineer/ Frontend-Architekt

Collaboration in the central framework team

Description

The framework team develops a large number of internal Angular libraries that are used across more than 40 applications.

Achievements

- Bundle size of the component library reduced by an average of 30%.
- Modules transferred to an Nx monorepo, thus considerably simplifying the internal workflow
- Introduction of secondary entry points
- Design of an update concept with automatic migration for the internal libraries

Tasks (extract)

- Support and further development of internal libraries that are used across the organization in over 40 applications
- Introduction of a concept for developing migration schematics. As a result, breaking changes from the internal libraries are automatically migrated to the

project teams.

Angular · Angular Material · Nx · RxJs · Cypress · Git · Jira · TypeScript · JavaScript · Jest

08/23 - 04/24 Frontend Software Engineer/ Frontend-Architect, Development Lead
Frontend

Development of applications for cooperation between health insurance companies and doctors

Description

In the course of the project, a legacy application for collaboration between health insurance companies and doctors is being redeveloped as a portal application based on modern web technologies. In addition, an existing Angular app was further developed.

Staff responsibility: 5 persons

Achievements

- Bundle size optimization of the application by 45
- Introduction of a scalable architecture
- Average build times reduced by 80% through remote caching

Tasks (extract)

- Frontend architect in several sub-applications
- Analyze and optimize runtime performance issues
- Bundle-size analysis and optimization
- Coach and train existing development team
- Evaluate Nx Cloud on Premise in-house
- Implement a lightweight state management approach used in four applications
- Collaboration in the frontend competence team and passing on best practices
- Maintenance and further development of internal libraries that are used across 30+ applications
- Support in the development of an update concept to reduce the growing update effort of the teams

Angular · Angular Material · Nx · RxJs · Cypress · Git · Jira · Java · Spring Boot · TypeScript · JavaScript · StoryBook · PlayWright · Jest · TDD

GAI NOVAcon GmbH

10/23 - 07/24 Frontend-Architekt

Further development of a web application for educational institutions

Description

Entwicklung einer Web-Applikation für eine Bundesbehörde zur Unterstützung bei der Bearbeitung verschiedener Anträge.

Staff responsibility: 7 Personen

Achievements

- Integration and coaching of 2 junior developers, continuous support
- Refine and modernize coding guidelines

Tasks (extract)

- Train and coach development team
- Implementing an interactive, configurable dashboard for use in multiple applications
- Carrying out code reviews and ensure quality

Angular · Angular Material · Tailwind CSS · RxJs · NgRx · Spring Boot · Java · TypeScript · JavaScript · Hibernate · Docker · K8S · Jenkins · SonarQube · Oracle · Liquibase · Nx · Cypress · StoryBook · Jira · Git · Confluence · Jest · Jasmine · TDD

LV1871

05/23 - 09/24 Consultant

Consulting of a insurance company

Description

Consulting for a company in the insurance industry. During the consulting, three Angular apps were reviewed and optimized.

Achievements

- Development and introduction of a sustainable test strategy consisting of unit and component tests as well as E2E tests
- Supporting a junior Angular team on its way to becoming a senior team

Tasks (extract)

- Coach frontend team
- Code review of the existing code base and development of recommendations for action
- Develop architecture recommendations and instruct implementation
- Develop and implement a testing strategy (component tests and E2E tests)

- Set up Nx workspaces in all applications. Design and implement optimal architecture and enforce it automatically via linting rules
- Communicate best practices to the existing development teams
- Train development teams on reactive programming with RxJs and Signals
- Instruct how to perform Angular updates (version 14 to 16)
- Weekly Q&A sessions

Angular · Angular Material · Tailwind CSS · RxJs · RxAngular · TypeScript · JavaScript · Nx · Cypress · StoryBook · Git · Jest · Jasmine · TDD

GAI NOVAcon GmbH

05/22 - 07/23 Fullstack Software Engineer, Development Lead Frontend

Management software for educational institutions

Description

Development of a web application for a federal authority to support the processing of various applications. This is a replacement for a legacy application.

Staff responsibility: 7 Personen

Achievements

- Build time reduced by 85% (8min 22s to 75s)
- Bundle optimization: initial bundle reduced by 65
- By introducing a remote cache, the customer saves approx. 60h/year per frontend developer
- Frontend team trained in RxJs: Basics and Advanced
- Defining and improving of the frontend architecture

Tasks (extract)

- Requirements engineering and consulting for the definition and implementation of user stories
- Architecture and API design.
- Setting up an Nx workspace (monorepo) and implementing the project structure based on best practices.
- Architecture review in the frontend and optimization
- Implementation of user stories in the frontend and backend
- Mentoring and knowledge building in the frontend team.
- Carrying out code reviews
- Performing Angular updates (version 12 to 16)
- Performance optimizations in the frontend
- Introduction of Cypress Component Testing
- Introduction of Playwright for E2E tests
- Runtime performance optimization

Angular · Angular Material · Tailwind CSS · RxJs · NgRx · Spring Boot · Java · TypeScript · JavaScript · Hibernate · Docker · K8S · Jenkins · SonarQube · Oracle · Liquibase · Nx · Cypress · StoryBook · Jira · Git · Confluence · Jest · Jasmine · TDD

Robert Bosch GmbH

01/20 - 04/22 Fullstack Software Engineer, Development Lead Frontend

Software for validating and visualizing supplier relationships

Description

New development of a web application to fully automatically check the production and sales process from production to delivery to the end customer with regard to legal requirements and company guidelines for compliance and to graphically display the production and delivery relationships taken into account.

The project was carried out according to the Scrum methodology in an international project team.

Staff responsibility: 7 Personen

Achievements

- Evaluation and introduction of Nx
- Frontend team trained in reactive programming

Tasks (extract)

- Requirements engineering and consulting for the definition and implementation of user stories.
- Implementation of user stories in the frontend and backend
- Carrying out code and architecture reviews
- Preparing and implementing architecture decisions
- Defining and implementing APIs to upstream and downstream systems
- Coaching the other developers in various subject areas: Angular, clean code, design pattern
- Runtime optimization in the frontend through the use of various optimization techniques (code-splitting, lazy-loading, optimized change-detection)
- Mentoring and knowledge transfer in the team
- Implementation of an agile mindset
- Performing Angular updates
- Building and maintaining an internal component library

Angular · RxJs · Angular Material · Spring Boot · Java · JavaScript · TypeScript · Docker · OpenShift · Jenkins · SonarQube · Selenium · Cypress · Oracle · Azure · Spring Cloud · Hibernate · JPA · Git · Jira · Confluence · TDD

02/19 - 12/19 Fullstack Software Engineer, Development Lead Frontend

Web application to support production planning

Description

New development of a legacy application (Oracle Forms) in an international, agile project team.

The software is used to support production planning for the automotive sector.

The project was carried out according to the Scrum methodology in an international project team.

Achievements

- Leading a international team of 5 developers
- Coach and train the junior developers

Tasks (extract)

- Requirements engineering and consulting for the definition and implementation of user stories.
- Implementation of user stories in the frontend and backend
- Carrying out code and architecture reviews
- Defining the frontend architecture and selecting libraries for implementation
- Define and implement APIs to upstream and downstream systems
- Development lead within the dev team
- Coaching the other developers in various subject areas: Angular, clean code, design pattern

Angular · RxJs · Angular Material · Spring Boot · Java · JavaScript · TypeScript · Docker · OpenShift · Jenkins · SonarQube · Selenium · Cypress · Oracle · Azure · Spring Cloud · Hibernate · JPA · Git · Jira · Confluence · TDD

Bosch Software Innovations GmbH

09/18 - 02/19 Fullstack Software Engineer

Mobile-App und Cloud-Entwicklung

Description

New development of a distributed system to support an IoT application in the agricultural environment.

Tasks (extract)

- Implementation and deployment of Spring-based MicroServices in the Cloud Foundry environment
- Unit and integration tests

- Further development of the native Android app taking into account reactive, event-based programming
- API design

Spring Boot · Spring Cloud · MicroServices · Android · Android JetPack · Cloud Foundry · REST · Azure · MongoDB · Rxjava · Apache Kafka · Kotlin · Hibernate · JPA · TDD

Education

2018 Master of Science (Business Informatics)

2016 Bachelor of Engineering (Engineering and Management)

Trainings

Currently training on Container Technologies, Kubernetes and Cloud Native

2023 PlayWright Workshop

2023 Professional Scrum Developer (PSD1) certification scrum.org

2023 Professional Scrum Master (PSM1) certification scrum.org

2022 Web Performance-Optimierung Workshop