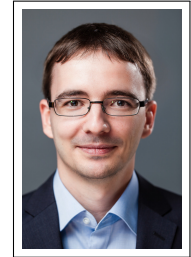# Raik Bieniek

Resume

Euckenstraße 8b
D-81369 München
📱 *+49 15678 610689*
✉ *mail@bieniek-it.de*
🌐 *bieniek-it.de*
in *raik-bieniek*
○ *rbi*

▬▬▬▬ ## Experience

Professional

02/2025 – today
Software Developer and Consultant, *Nortal AG*, remote

Project Description

A large legacy system, previously consisting of several separate subsystems developed and operated by different parties, was to be integrated into a unified overall system. Externally maintained subsystems were analyzed and knowledge about their structure and functionality was built up. In addition, concepts to leverage synergy effects in the new overall system were to be developed.

Activities

- Developing and transferring knowledge about the structure and concepts of an existing microservice-based system
- Designing concepts for merging individual components such as Keycloak-based authentication modules
- Consulting on architectural evolution to reduce system complexity
- Developing CI/CD pipelines using GitHub Actions
- Deployment via Azure Container Registry and Azure Kubernetes Service
- Implementing new features for a Vue.js-based web frontend
- Improving maintainability of the TypeScript/Vue.js code through refactoring
- Creating technical stories, e.g. to define alerting requirements

Tools, Technologies, Standards

- Technologies: Kubernetes, Azure, Helm, Docker, Spring Boot, Java, Vue.js, GitLab, Github, Jira, Kibana, Elasticsearch, PostgreSQL
- Domain Standards: eForms, eForms DE

01/2025 – **Software Architect and Developer**, *deborate GmbH*, Unterhaching
today *Project Description*

In an established software system composed of several subsystems, the communication interfaces needed to be redesigned. Core parts of the new interface concept were subsequently implemented.

Activities
- ○ Analysis of existing interfaces and identification of conceptual issues
- ○ Iterative design and evaluation of alternative interface concepts
- ○ Discussing results with the development team and incorporating feedback
- ○ Implementation of the chosen concept based on REST, Server-Sent Events, JAX-RS, and CDI/OpenWebBeans
- ○ Creating technical documentation for the new concepts
- ○ Developing and implementing a strategy for gradual migration to the new interface architecture

Tools, Technologies, Standards
- ○ Technologies: Docker, Java, Java EE, CDI, SSE, JAX-RS, GitLab, Jira, Kibana, PostgreSQL, Oracle

02/2022 – **Freelance Software Architect**, *percision services GmbH / Bundesdruckerei*, remote
12/2024 / Berlin

Project Description

For a growing platform for finding public procurement notices, the software architecture was further developed. In addition to technical leadership, new features were implemented mainly in the backend.

Website
- ○ https://www.oeffentlichevergabe.de

Activities
- ○ Further development of a successful microservice architecture
- ○ Hands-on implementation and contribution of valuable ideas across the software development lifecycle
  - – Architecture: concept development, coordination, and documentation (arc42, Architectural Decision Records (ADR))
  - – DevOps: development of Docker images and Helm charts (Kubernetes deployment)
  - – CI/CD: building GitLab-based build and deployment pipelines
  - – Backend: feature development with Spring Boot, performance optimization of critical code paths
  - – Frontend: TypeScript code generation for communication with backend services
  - – Operations: creating Kibana dashboards, structuring logs
- ○ Creating an authorization concept and consistently implementing OAuth/OpenID for internal and external permissions
- ○ Developing a versioning and release strategy for individual microservices
- ○ Development in Scrum teams of varying size
- ○ Conducting code reviews to ensure consistent coding standards

Tools, Technologies, Standards
- ○ Technologies: Kubernetes, OpenShift, Helm, Docker, Spring Boot, Java, Vue.js, GitLab, Jira, Kibana, Elasticsearch, PostgreSQL, arc42, ADR
- ○ Domain Standards: eForms, eForms DE, OCDS, PEPPOL

01/2022 – **Freelance Software Developer**, *deborate GmbH*, Unterhaching
03/2023 *Project Description*

Data from very complex external database schemas had to be migrated into the schema of the client's own system. A dedicated migration tool had to be developed. Due to the scope, a step-by-step migration had to be ensured while the target system was already in productive use.

Activities

○ Independent design and implementation of a tool for complex database migration
○ Multi-phase migration over longer periods during ongoing operations
○ Multiple source databases (Oracle, MySQL) and multiple target databases (PostgreSQL)
○ Successful completion of the migration demonstrates the high quality of the migration tool

Tools, Technologies, Standards

○ Java, JDBC, Maven, Oracle, MySQL, PostgreSQL, Owncloud, Jira

10/2021 – **Freelance Software Developer**, *Carl Zeiss Digital Innovation GmbH / Carl Zeiss*
12/2021 *Meditec AG*, Munich
Project Description

Feature development for a data management system for ophthalmology.

Activities

○ Test-driven frontend development with JavaFX
○ Improving frontend software design
○ Further development of the Install4J-based installer, setup of a build in TeamCity

02/2021 – **Freelance Software Developer**, *deborate GmbH*, Unterhaching
today *Project Description*

A small JavaFX-based form application grew steadily with new features due to high user demand. The original architecture reached its maintainability limits. A JavaFX expert was needed to incrementally improve the architecture and implement new features.

Activities

○ Independent, test-driven development of new features
○ Continuous migration from Java 8 to Java 21 and JavaFX 8 to JavaFX 21
○ Architectural improvements, e.g., enhanced modularization
○ Architecture documentation using arc42
○ Developing web and TCP services with Spring Boot
○ Designing Oracle database schemas and queries
○ Integration of various SOAP-based external systems

Tools, Technologies, Standards

○ Java, JavaFX, JDBC, Maven, Oracle, Git, Jira, SOAP, FreeMarker

02/2021 – **Freelance Software Developer**, *Carl Zeiss Digital Innovation GmbH/Carl Zeiss*
05/2021 *Meditec AG*, Munich

Further development of a data management system for ophthalmology (FORUM).
○ Support in completing a release
○ Backend development with Spring Boot (e.g., development of REST services)
○ Design and implementation of security-related features (e.g., signing/verifying artifacts)

11/2019 – **Freelance Software Developer**, *Avision GmbH*, Oberhaching
01/2021 Further development of an API gateway for a large logistics service provider
- Backend development with Apache Karaf (OSGI), Apache Camel, Spring Core
- Maintenance and error analysis in the high-availability production environment (DevOps)
- Log analysis with the ELK Stack (Elasticsearch, Logstash Kibana)
- Building knowledge about an existing system for the client
- RedHat/CentOS Linux administration, especially Apache HTTP Server, OpenLDAP

06/2020 – **Freelance Software Developer**, *Avision GmbH*, Oberhaching
09/2020 Further development of a Spring Boot / Angular-based web application
- Fullstack development in both the Angular 8-based frontend and the Spring Boot-based backend
- Development of complex features after a one week of training period
- Setup of authentication for web services based on TLS client certificates
- Creation of complex JPQL queries (JPA)

11/2019 – **Freelance Software Developer**, *Avision GmbH*, Oberhaching
01/2021 Further development of a Liferay-based application
- Further development and administration of a portal application with Liferay (DevOps)
- Development of Liferay portlets
- Oracle DB query creation for development and analysis purposes
- RedHat/CentOS Linux administration, especially Apache HTTP Server, Apache Tomcat

10/2019 **App Developer**, *Self-employed*, Munich

App development for Samsung smartwatches
- Development of the app "Remote for Kodi,än app for remote control of the Kodi media center
- Sale in the Samsung Galaxy Store
- Frontend development with web technologies TypeScript, React, NPM
- Creation of React components for TAU (Github: rbi/tau-react)

11/2016 – **Senior Consultant - Software Developer**, *Saxonia Systems AG*
09/2019

02/2016 – **Consultant - Software Developer**, *Saxonia Systems AG/Carl Zeiss Meditec AG*,
09/2019 Munich

Further development of a data management system for ophthalmology (FORUM).
- Development of new features for a comprehensive software system with multiple Scrum teams
- Technical leadership and Scrum Master activities for a sub-team with 4-5 developers and testers
- Further development of a large JavaFX-based application, e.g., optimizing performance and memory usage when processing high-resolution images
- Development of features for the Spring Boot-based server
- Development of a TypeScript/Angular-based add-on for the JavaFX fat client
- Other topics: Spring Core, TeamCity plugin development, Instal4J installer development, creation of Docker images, system tests with TestFX and QF-Test

11/2013 – 02/2016	**Consultant - Software Developer**, *Saxonia Systems AG*, Görlitz/Dresden Further development of the digital Scrum board eteoBoard in a Scrum team. ○ Development of new functionalities in the JavaFX-based desktop client ○ Implementation of custom CDI scopes to improve resource usage of the eteoBoard server ○ Writing code in various programming languages as needed, e.g., Java, C# code for a Microsoft TFS plugin or Pascal code for an Inno Setup-based installer ○ Reducing system complexity through a redesign of modularization ○ Creation of REST services with JAX-RS/Jersey ○ Implementation of database accesses with JPA/Eclipse Link ○ Involvement in many areas of the software development process, such as software design, implementation, automated and manual testing, and customer support
11/2011 – 12/2015	**Working Student/Private**, *Saxonia Systems AG*, Görlitz Development of the SynchronizeFX library, which allows sharing JavaFX-based data models over the network. ○ Simplification of developing data model synchronizations in JavaFX-based applications through automatic detection of data structures using reflection ○ Enabling concurrent modifications of shared data by implementing automatic detection and resolution of conflicting changes

Miscellaneous

12/2017 – 04/2019	**Development of the application rddns**, *Private Project* Development of a Rust-based application for updating DynDNS entries.
06/2014 – 12/2016	**Trading4j**, *Private Project* Development of a Java library for implementing reusable and testable expert advisors for automated forex trading. ○ Development of an integration for the MetaTrader trading software with C and MQL4
11/2011 – Present	**Debian-based Home Server**, *Private Project* Hosting various server services for private use. ○ These include, among others, Keycloak, OpenLDAP, MIT Kerberos, Bind, Postfix, Dovecot, Nginx and Apache HTTP Server. ○ Used technologies: Kubernetes, Helm, Docker, Docker Compose

Education

10/2011 – 11/2013	**Master of Science, Computer Science**, *Hochschule Zittau/Görlitz – University of Applied Sciences*, Grade average: 1.4
10/2008 – 10/2011	**Bachelor of Science, Computer Science**, *Hochschule Zittau/Görlitz - University of Applied Sciences*, Grade average: 1.5

Qualifications

01/2016	**iSAQB Certified Professional for Software Architecture, Foundation Level**, *oose Innovative Informatik eG*, Dresden
11/2010	**UNIcert Stufe II in der englischen Sprache**, *Hochschule Zittau/Görlitz*, Görlitz

Skills

Programming Languages	Java, Typescript, JavaScript, Rust

Frameworks	Kubernetes, Helm, Docker, Spring, Spring Boot, JavaFX, CDI/Weld, JAX-RS, JPA, Apache Camel, PostgreSQL, Oracle DB, Maven, Git, Angular, NPM
Software	Linux (Debian, Ubuntu), OpenShift, Jenkins, VSCode, Jira, Gitlab, Kibana (ELK Stack), TeamCity, IntelliJ
Other Experiences	Extensive software systems, microservice architectures, TDD, leading small teams, Scrum, learning new technologies
Languages	German, English