

Michal Gajda – Java Software Developer



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Languages German
English

Focus Areas

Software Development with Java, Cloud Development, and DevOps

Professional Experience

since 04.2006 Freelance Software Consultant

09.2003 – 03.2006 TNG Technology Consulting GmbH, Unterföhring by Munich

- Senior Software-Consultant (seit 10.2005)
- Software-Consultant (09.2003 – 09.2005)

04.2001 – 08.2003 Betaresearch GmbH, Unterföhring by Munich

- Software-Developer

Projects

KYC – Know Your Customer

Project Duration: 09.2023 – Present

Client: Telefonica o2 Germany, Munich

Technologies Used:

Java 17, Python, Spring 6, JPA, Lombok, Cucumber 7, GitLab CI/CD, AWS (Load Balancer, ECS, CloudWatch, KMS, IAM, S3, Code Deploy, Secrets manager), Terraform, Docker, Docker Compose, Payara 6, Maven, Artifactory, Git, Junit, REST, OpenAPI, Jira, Scrum, SonarQube, Trivy

Project Description:

Development of a KYC API for verifying customer identities based on verified bank account data linked to their mobile number. The goal is to improve the conversion rate for new customer registrations and accelerate the approval process for customer products.

Results:

- **Improved Conversion Rate:** Faster and seamless verification led to a higher registration rate.
- **Enhanced Data Quality:** Stronger validation of personal attributes reduced future errors and incidents.

Responsibilities:

- Analyzed and designed the application.
- Implemented REST API using Spring MVC.
- Developed business logic.
- Set up DevOps processes, including GitLab CI/CD pipelines, and deployed the application on AWS.
- Created integration tests using the Cucumber framework.
- Conducted code reviews to ensure code quality, efficiency, and best practices.

Migration of TelCo Stack to AWS

Project Duration: 09.2020 – 12.2023

Client: Telefonica o2 Germany, Munich

Technologies Used:

Java 8 , Python, Docker, Docker Compose, Payara 5, Terraform 1.9, AWS (ECS, CloudWatch, CodeDeploy, StepFunctions, SecretsManager, RDS, EC2, ElasticCache, S3), GitLab CI/CD, Spring 5, JPA, Cucumber 7, Terraform, Maven, Artifactory, Git, Junit, PostgreSQL, Apache Kafka, REST, Jira, Scrum, SonarQube, Trivy

Project Description:

Migration of existing middleware components to the AWS platform. The migration involved a complete redesign of the application, including switching the application server, database, and cache, and adapting them to AWS. The data migration, including runtime and transaction data, was performed overnight to minimize downtime. AWS Step Functions and Lambda (in Python) were used to develop a scalable workflow engine.

Results:

- **Optimized CI/CD Pipelines:** Implemented modern GitLab pipelines to automate deployment processes
- **Successful Data Migration:** Ensured data integrity and minimal downtime during the

migration.

- **Cost Reduction:** Lowered platform costs by migrating to AWS.
- **Decommissioning of On-Premise Servers:** Reduced hardware costs and simplified infrastructure.
- **Increased Scalability and Availability:** Improved application scalability and availability by leveraging cloud services.

Responsibilities:

- Refactored the application to run on the new Payara application server and PostgreSQL database.
- Migrated the cache from Oracle Coherence to Redis.
- Set up DevOps processes, including GitLab CI/CD pipelines, and deployed the application on AWS.
- Developed integration tests using the Cucumber framework.
- Conducted code reviews to ensure code quality, efficiency, and best practices.

Service Layer in Insurance Company

Project Duration: 09.2017 – 12.2022

Client: Axa Insurance, Munich

Technologies Used:

Java 8, IntelliJ IDEA 202x, Oracle 12, REST-Services mit Apache CXF, Red Hat OpenShift 4.x, Cucumber, Spring Security 5.x, Jenkins, Jenkins Pipelines, GitHub, Gatling, AssertJ, Junit, Spring Boot, JPA, Rest, Swagger, Jboss Wildfly, Kibana, Gray Log

Project Description:

Maintenance and modernization of various SOAP and REST services in the areas of contracts, contract terms, customer consulting, contract validation, and GDPR compliance. These services integrate the client's frontends and provide additional features such as authentication, authorization, load balancing, and multi-channel capability. The goal was to modernize the services and migrate them to the cloud.

Results:

- **Successful cloud migration:** Services migrated to the cloud using OpenShift and AWS, improving availability and scalability.
- **Enhanced security:** Implementation of authentication and authorization mechanisms to meet GDPR requirements.
- **Optimized REST services:** Improved API integration for seamless frontend interaction.
- **Modern CI/CD processes:** Introduction of CI/CD pipelines with deployments to a smoke environment.
- **Automated integration tests:** Implementation of Gherkin-based tests using Cucumber,

integrated into the CI/CD pipeline.

Responsibilities:

- Redesigned the Cucumber tests and integrated them into CI.
- Reimplemented and modernized legacy microservices (JBoss Wildfly → Tomcat).
- Containerized applications using Docker for OpenShift.
- Developed and integrated Cucumber tests in Gherkin syntax.
- Co-developed Jenkins pipelines for build, test, and deployment.

Middleware System in Legacy TelCo Stack

Project Duration: 01.2009 – 08.2017

Client: Telefonica o2 Germany, Munich

Technologies Used:

Java 8, Weblogic 12, Oracle 12, Jersey (REST), SOAP (JAX-WS 2.2), JBoss, Drools 4, JPA, Spring 2.5, Maven 3, GitLab, IntelliJ, EJB 3 (MDB), JPA, Oracle AQ, JUnit 4.x, EasyMock 2.5, Log4J, Scrum, Spring 3.1, Web MVC, Oracle Coherence 12.2, Jenkins, Gradle, SonarQube, Trivy, Splunk

Project Description:

Development of an innovative and complex middleware solution acting as an interface between frontend channels and backend systems. This middleware provides comprehensive REST and SOAP APIs for various business areas, including product catalog, customer self-care, reactivation, and contract renewal. Key challenges included designing and implementing authentication and authorization concepts as well as ensuring system performance, stability, and robustness.

Results:

- **High system availability:** Ensured a stable and robust middleware capable of efficiently handling a high number of requests.
- **Optimized performance:** Improved response times through targeted adjustments and optimizations of the middleware architecture.
- **Successful integration:** Seamless connection of frontend channels to backend systems using modern APIs.
- **Agile development:** Implementation of Scrum methodologies for flexible and rapid adaptation to changing requirements.
- **Caching and throttling:** Introduced caching mechanisms and throttling protection to prevent overloads on frontend and backend systems.

Responsibilities:

- Designed and implemented REST APIs for frontend channels.
- Designed and implemented SOAP APIs for backend systems (e.g., CRM, billing, GIS,

- prepaid).
- Developed the authentication and authorization concept for the middleware.
- Supported the team in ensuring system performance, stability, and robustness.
- Co-developed Jenkins pipelines for build, test, and deployment on WebLogic Server.

BMW Driving Training

Project Duration: 09.2015 – 03.2016

Client: BLU Portal & Applications, Oberhaching

Technologies Used:

Java 7, Apache Groovy 2.4, Oracle 11g, Maven 3, Jenkins

Project Description:

Development of a system for managing driver training sessions for BMW vehicles and motorcycles on various tracks worldwide. The system enables booking of training sessions, vehicle reservations, track allocations, and trainer assignments. The goal was to create a user-friendly platform that optimizes the entire booking process.

Results:

- **Efficient data migration:** Successfully migrated business data from the old system to the new driver training system, considering data complexity.
- **Optimized performance:** Improved system performance by optimizing Groovy migration scripts to meet time constraints.

Responsibilities:

- Reimplemented business data migration from the old system to the new driver training system.
- Optimized Groovy migration scripts to enhance performance.

Employee stock program of a global corporation

Project Duration: 08.2013 – 02.2014

Client: Siemens AG, Oberhaching

Technologies Used:

Java 7, JBoss 7.1, JBoss EAP 6.0, Eclipse 4.2 Juno, JPA 2.0, Hibernate 4, Oracle 11g, JUnit 4.x, DBUnit, SVN, Hudson, Apache POI 3.9

Project Description:

Development of a system for managing the employee stock ownership program of a global corporation. The program enables nearly every employee, regardless of location or role, to become a co-owner of the company. The system consists of multiple modules, including a GUI for managing stock programs, accounting and reporting modules, as well as interfaces to HR, finance (bank/depository), and SAP.

Results:

- **Successful implementation:** Developed and integrated multiple modules to enable comprehensive management of the employee stock ownership program.
- **Optimized performance:** Ensured system performance, stability, and robustness during operation.

Responsibilities:

- Developed and implemented the accounting and reporting components of the system.
- Supported the development of the GUI for managing the employee stock ownership program.
- Implemented interfaces to financial and HR systems.
- Conducted quality assurance measures, including code reviews and testing with JUnit and DBUnit.

Customer Reward System

Project Duration: 09.2003 – 12.2008

Client: o2 Germany, Munich

Technologies Used:

Rational Unified Process (RUP), RequisitePro, Rational Rose, SoDA, ClearCase, Eclipse 3.3, JBoss 4.0.4, EJB 2.1, Struts 1.2.x, Hibernate 3.0, Log4j 1.2.15, ClearCase, Oracle 9.2.0.7, Perl, Log4Perl, JUnit, WebUnit, JMeter 2.3.1, Rational Robot, Ant 1.6.x, JSP, Servlet API

Project Description:

Development of an application supporting the o2 bonus program. The application registers customers participating in the bonus program through various channels (online and offline). Customers can earn bonus points through different activities, campaigns, and transactions, which can be redeemed for rewards. The system consists of multiple modules, providing comprehensive functionality.

Results:

- **Successful implementation:** Developed and integrated the application, enabling efficient management of the bonus program.

- **Increased customer retention:** The bonus program significantly boosted customer engagement and satisfaction.
- **Optimized system architecture:** Implemented a modular architecture, allowing easy expansion and maintenance.
- **Efficient testing procedures:** Applied testing methods (JUnit, JMeter) to ensure system quality and performance.

Responsibilities:

- Participated in the RUP process as an Application Analyst to clarify end-to-end requirements.
- Conducted effort estimations and modeled changes (Use Case, Data Model).
- Ensured application performance and innovation through technical support and quality assurance.
- Developed the web application (CRS Reward Manager) based on Struts, JSP, Servlet API, and Hibernate, and conducted integration testing.

Skills

Programming/Scripting Languages

- **Java 8/11/17:** very good (20+ years)
- **XML, XSD, XSL:** very good (15+ years)
- **SQL, PL/SQL:** very good (15+ years)
- **Groovy:** good (5+ years)
- **Terraform:** good (3+ years)
- **Python 3.x:** good (5+ years)

Cloud Technologies

- **OpenShift 4.x:** very good (5+ years)
- **AWS (IAM, ELB, ECS, CloudWatch, RDS, Elastic Cache, CodeDeploy, Step Functions, Secrets Manager, Step Functions, S3, EC2):** very good (5+ years)

J2EE Technologies

- **EJB 2.1 / 3:** very good (12+ years)
- **JSP, Java Servlets, JSTL:** very good (15+ years)
- **JMS 1.1:** good (7+ years)

- **Kafka 3.x:** very good (5+ years)
- **JDBC 3.x/4.x:** good (10+ years)
- **JPA 2.x/3.x:** very good (12+ years)
- **SOAP / REST:** very good (15+ years)
- **Servlet API:** very good (15+ years)
- **JTA 1.3:** very good (15+ years)

CI/CD and DevOps-Tools

- **Jenkins (Admin, Pipelines):** very good (7+ years)
- **Git/Git Hub/GitLab (git, branching):** very good (10+ years)
- **GitLab CICD:** very good (5+ years)
- **Docker, Docker Compose:** very good (7+ years)
- **Maven 3.x:** very good (10+ years)

Frameworks

- **Jersey 2.x:** good (5+ years)
- **Apache CXF 3.x:** very good (7+ years)
- **Open API, Swagger 2.x/3.x:** very good (5+ years)
- **JUnit 4/5:** very good (10+ years)
- **Spring 5.x/6.x:** very good (15+ years)
- **Cucumber 7.x:** very good (8+ years)
- **AssertJ 3.x:** very good (8+ years)
- **Mockito 4.x:** very good (8+ years)
- **Spring Boot 2.x/3.x:** very good (10+ years)
- **Lombok:** good (5+ years)

Databases and Tools

- **Oracle 10/11/12/19:** very good (15+ years)
- **PostgreSQL:** good (5+ years)
- **SQL Developer 4.x:** good (5+ years)
- **PGAdmin 4:** good (5+ years)
- **Redis:** good (5+ years)
- **DynamoDB:** good (5+ years)

Web-/Application Server

- **JBoss (EAP Wildfly):** very good (12+ years)
- **Bea WLS 12:** good (7+ years)
- **Tomcat 8.x:** good (10+ years)
- **Payara 5.x/6.x:** very good (7+ years)

Operating Systems

- **Windows 8/10/11:** good (5+ years)
- **Linux:** very good (10+ years)

Application Analysis/Design/Methodologies

- **Scrum:** good (10+ years)
- **Object-Oriented Analysis/Design/Programming (OOA/OOD/OOP):** very good (15+ years)
- **Design Patterns:** very good (15+ years)

Others:

- **IntelliJ IDEA 202x.y:** very good (7+ years)
- **SoapUI:** good (10+ years)
- **Jira:** good (10+ years)
- **Confluence:** good (10+ years)

Industry Experience

- **Telekommunikation:** 15 years
- **Insurances:** 5 years

Higher Education

Master of Science in Informatik

Silesian University of Technology, Gliwice, Poland

Focus Areas: Databases and Computer Networks

Graduation Grade: very good