# Viktor Rohlenko Master of Computer Science (Dipl.-Ing.)

Work experience since 1997



iSAQB - Certified Professional for Software Architecture Stanford - Certified in Machine

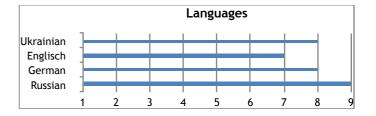
Learning

AWS Fundamentals - Certified

- I am certified Solution Architect with 20+ years of experience in a consultancy of technologies, designing distributed internet facing systems, development of Java & Spring based systems.
- Currently my role is IT systems architect in US company FiServ and I lead DevOps enabling team responsible for migration projects, definition of new architectural principals and best practices, performance, resilience, availability, fault tolerance of components, improvements, stability, research for solution of complex problems in production, serve and consult other development teams, enable and evangelise the new for developers technologies.
- Solution Architect & SME was my previous role in eSolutions department of US company FirstData and was responsible for project & quality goals of high available, internet facing products for financial institutes and police authorities.
- •As SPoC was responsible for requirement improvements, estimation, contact to business, design, full-stack development, interview, boarding and leading of external employees and off-shore teams, QA with DevOps, deployment, CR-, incident-, release- and issue-management.
- •My primary daily active skills are design and architecture of distributed systems and includes following technologies and tools e.g. like: Java, SpringBoot, Maven, IntelliJ, Docker, k8s, Linux & CLI, Profilers, ActiveMQ, NATS, Git, Gerrit, GitLab, Jenkins, Grafana, Prometheus, Kibana, Mac OS, SQL, DBs, Jira, etc.
- Previous I've gained experience in development of systems with SOA architecture using various products, where my strength was a customer-oriented consultancy of technologies.

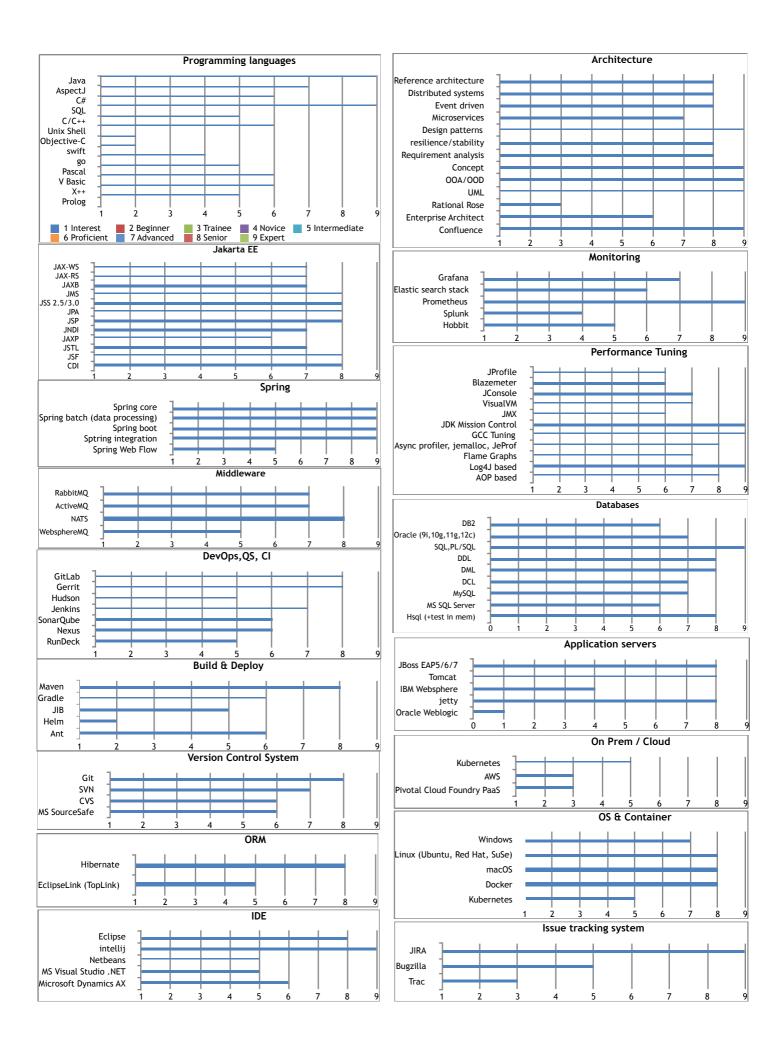
## **Employment**

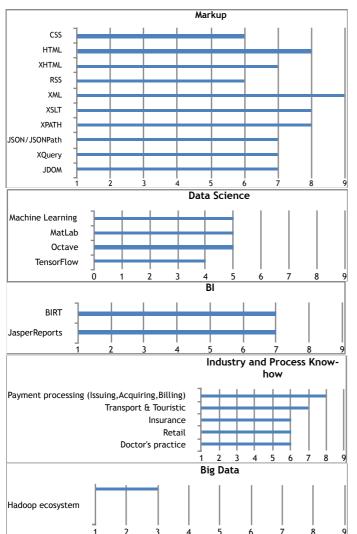
Nov 2014 - <u>current</u>	Fiserv (First Data) Germany IT systems architect Bad Homburg
Oct 2012 - Oct 2014	CGI Group Inc. Senior Consultant (Sulzbach)
Dec 2006 - Oct 2012	PASS Consulting Group Co. KG Senior Innovation Consultant (Aschaffenburg)
Aug 2004 - Nov 2006	K2 Consult GmbH Software developer and Consultant (Offenbach)
Feb 2004 - Jun 2006	HTB-Europa GmbH Software developer and Consultant (freelancer,Frankfurt am Main)
Sep 2003— Aug 2004	Siemens AG .NET Software developer Software Engineering internship of Darmstadt University of Technology
Jun 2002— May 2004	Integration AG .NET Software developer (Darmstadt)
Jun 1997— May 2000	Computer System Design Ltd. Software developer and Consultant (Lemberg)

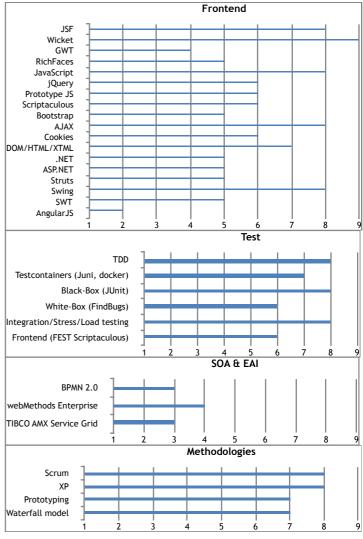


#### Education

2005-2006	PhD Student at Darmstadt University of Technology Research on new Rapid Application Development and Refactoring methods for Aspect Oriented Programming
2001-2005	Admittance to PhD Postgraduate study of Computer Science at Darmstadt University of Technology Studies for approval as Master of Science in Germany and admittance to PhD study
1996 - 1997	Engineer - Master of Computer Science Computer-based systems of information processing and automation Study at Lviv Polytechnic National University
1992 - 1996	Bachelor of Computer Science Study at Lviv Polytechnic National University







#### General

### Migrations of Gateway Payment platform

The Gateway Payment platform is a backbone for FiServ eCommerce and Next Generation Point-of-Sale platform providing different interfaces for authorisation and settlement of various payment methods in eCommerce, Retail and automated Mail/Telephone order environments. The system is high available and high performing distributed system in different regions of the world like EMEA, APAC, NA, LAC & LATAM and Australia. The product consist of 13 main online services and it's microservices (42). I am acting as IT systems architect and team lead. My personal contribution and responsibility of my team are the migration projects and enabling of new technologies for the platform. In addition, as part of platform ownership, I am responsible for 24/7 on call duty.

Business line eCommerce & Banking

Client: eCommerce of Retails, Merchants,

Issuers, Acquirers and foreign gateways

**Key skills:** Architecture, DevOps, Spring Boot,

Research, Performance tuning

Role: Lead solution architect, technology

enabling, reliability engineer.

Responsibility: Architecture, prototyping, technical

concepts, migration projects, stability and reliability, improvements, serve and provide consultancy to development teams, enable and evangelise the technologies and best practices, refactoring of monolithic architecture into a micro-services, QA

**Period:** 05/2018 – **Current** 

Employer: FiServ (First Data)

#### **Projects**

### Migration to NATS of Gateway Payment platform

I am responsible for enabling of NATS technology into the product ecosystem which opens new opportunities for intercommunication inside platform and as well on enterprise level. The migration of all business flows based on legacy middleware from ActiveMQ to NATS technology helps the enabling by example. The design, resilience performance improvements and contribution to Spring and NATS open source community is part of my work. It assumes support, technology evangelism and consultancy in compony. The goal is the teams should have easy start with the new technology.

**Key skills:** Architecture, DevOps, Spring

Integration, Research, Scalable and resilient design, Performance tuning, NATS, Prometheus, Go, Testcontainers,

Grafana, Java

Role: Lead solution architect, technology

enabling, reliability engineer.

Responsibility: <u>Architecture</u>, <u>prototyping</u>, <u>technical</u>

concepts, migration of existing flows, stability and reliability, resilience and performance improvements, serve and provide consultancy to development teams, enable and evangelise the technology and best practices, QA

Period: 09/2020 – **03/2023** 

Employer: FiServ (First Data)

### JDK11 migration of Gateway Payment platform

I was responsible for platform migration from Java8 to Java11. An analyses and migration of the legacy to new technological stack was done during the project. The optimisation of a runtime behaviour, of a memory footprint was part of this move. An extension of monitoring metrics and monitoring dashboards became my responsibility. Zero-downtime in production and Zero-impact on manufacturing process are basic requirements for the migration. My responsibilities assumed the support of development teams, a consultancy and a promotion of changes required for this move.

Key skills: Architecture, DevOps, Spring Boot 2,

Research, async profiler, jemalloc, JeProf, Flame Graphs, Prometheus,

k8s, k9s

Role: Lead solution architect, technology

enabling, reliability engineer.

Responsibility: Architecture, prototyping, technical

concepts, migration of platform, stability and reliability, improvements, serve and provide consultancy to development teams, enable and evangelise the technologies and best practices, refactoring, performance & GCC tuning, analyses of memory leaks,

monitoring extension.

**Period:** 09/2020 – **09/2021** 

Employer: FiServ (First Data)

# Migration of Gateway Payment platform to Spring Boot

I was responsible for migration from JBoss to Spring Boot technology. The responsibility assumed a leverage of the product with 12 monolithic applications to the next technological and architectural level, provide basis for micro services driven development and implement first micro service candidates showing by example in production. I am acting on each level of Software manufacturing processes like development, CI/CD pipe lines, and operational in production. The improvement of the development processes and definition of new principals for more than 150 developers was the part of my responsibility. Zerodowntime in production and Zero-impact on manufacturing process are basic requirement for this migration.

Key skills: Architecture, DevOps, Spring Boot,

Research, Performance tuning, Docker,

k8s, Java

Role: Lead solution architect, technology

enabling, reliability engineer.

Responsibility: Architecture, prototyping, technical

concepts, migration projects, stability and reliability, improvements, serve and provide consultancy to development teams, enable and evangelise the technologies and best practices, refactoring of monolithic architecture into a micro-services, QA

**Period:** 05/2018 – **09/2020** 

**Employer:** FiServ (First Data)

#### Police controlling product

I was responsible for success of all projects and quality goals related to this product, which is multi-tenant system provides a web based reporting for polices authorities of different German federal states with about 500 active users. The reporting helps the officials to control flow of penalty payments and the payments for different official services provided by the authorities. The application covers specific requirements for various federal states. The architecture assumes integration with different processing-systems as back-end and provides configurability with heterogeneous databases. Open architecture of application allows the boarding of new federal states with cost-minimisation aspect. The system is hight available and easy scalable. The system growth is guaranteed due to the big demand by new customers and insurer evolution and product vision.

**Business line:** Banking, Global Business solutions

Personal success:

Established "one" product on market, created multi-tenant design, developed reusable APIs, improved and implemented customer specific requirements, defined & improved architecture, mitigated security risks, boarded 3 federal states

Client: Polices authorities - public sector

**Key skills:** Eclipse, Spring, Hibernate, Wicket,

Java, SQL, DDL, HSQL DB, Oracle 12c, MS SQL, HTML, Git, Gerrit, Conception, OOD, TDD,UML 2, Maven, DevOps, CI - Jenkins (Hudson), Linux, JIRA, XP, confluence

Role: SME, architect, analyst, software developer, coacher & lead, SPoC

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Responsibility: Architecture, requirements

improvement, estimation, full-stack development, production/operational support, release plan, projects coordination, CR management, issue management, deployment, code review, coaching & leading, consultancy of business department and L2 support, interview & boarding of external resources, capacity

planing

**Period:** 05/2015 – 08/2018

**Employer:** First Data

#### Billing solution with Client Focus product

I was responsible for success of all projects and quality goals related to this product, which is multi-tenant system provides a web based billing solution for financial institutions. It helps banks to automate their business processes and generates invoices for retailers. The solution operates invoicing accordingly to a flexible tariff system for different payment transactions of merchant in batch mode and provides adjustable workflow for billing processes. The solution is designed as n-tier distributed system. Each tier acts like independent service (sub-system) and communicate by different channels (3 of them by queue) and runs in own clusters. E.g. front - end requests different batch processors and a pdf processor requests document service for creation of print documents. Accordingly to EAI and SOA principles the system architecture assumes an enterprise integration with other enterprise systems like master data leading-, transaction-, authorisation systems, SEPA-processors and SAP modules.

**Business** Banking, Global Business solutions

Personal success:

Established web based product on market, improved architecture, designed & implemented high performance monthly import accordingly to ETL, migrated from legacy platform, provided ideas accepted by

product managers

**Client:** 56 different financial institutions / banks

Key skills: Eclipse, Spring, Spring Batch, Hibernate, Wicket, Java, JMS, Apache MQ, Rabbit MQ, Websphere MQ, SQL, DDL, HSQL DB, DB2, HTML, Git, Gerrit, Conception, OOD, TDD, UML 2, Enterprise Architect, Maven, DevOps, SaltStack, CI - Jenkins (Hudson), Linux, XP, Jasper Report, confluence, JIRA,

**Enerprise Architect** 

**Role:** SME, architect, analyst, software developer,

coacher & lead, SPoC

Responsi bility:

Architecture, requirements improvement, estimation, full-stack development, production/operational support, release plan, projects coordination, CR management, issue management, deployment, code review, coaching & leading, consultancy of business department and L2 support, interview & boarding of external resources, capacity planing

**Period:** 04/2013 – 08/2018

First Data

#### **MDB Generic Build**

MDB is abbreviation for Mass Data Billing system. The system can be applied for consumers and subscribers across many sectors - telecoms and media, transport and logistics and even energy & utilities. The MDB system is available via a multi-tenant, software-as-a-service platform, through which users access the system remotely over the internet. It aims to solve the many unique billing and compensation challenges - such as issues related to mass data collection, transactional volumes and varying tariffs faced by clients in industries including telecommunications, utilities, transportation and logistics. The architecture assumes usage of integration layer (interfaces for the customer and a backend system), various SAP modules and other systems. The integration layer uses all components of the Software AG's webMethods Suite and implements following tasks:

Definition of access policies and planning the service lifecycle (CentraSite)

Authentication, authorisation and implementation of access rules (Mediator)

Custom routing (Trading Networks)

Message validation(Broker)

Providing of Service Endpoints (IS)

Message transformation (IS)

Process control flow (BPM-Engine)

Portal for Troubleshooting (CAF)

**Business:** Industry independent, Consulting

Key skills: Eclipse, Enterprise Service Bus (ESB),

FTP, Java, JDBC, JMS, Communication, Conception, OOD, SOA, SOAP, Software development, UML 2, VMware

Workstation, WSDL, XML, Linux

**Role:** Architect & developer

Responsibility: Services development using

webMethods. Business process development, support Bid process

Products: Software AG Product: CentraSite,

webMethods Integration Server, Mediator, webMethods Broker, Trading Networks, SAP Adapter, BPM, Composite Application Framework (CAF), Optimize4Process,

Optimize4Infrastructure

Enterprise Architect, soapUI, SVN

**Period:** 10/2012 – 03/2013

Employer: CGI

# Position Paper (Tibco AMX ServiceGrid vs JBoss Application Server)

The paper provides recommendations for the DB-Systel. It compares two technologies JEE with JBoss EAP 6 and TIBCO Active Matrix Service Grid, examines different development aspects specific for DB-Systel and make a conclusion based on the comparison. The recommendation comprises development and operation of the services with preferred technology in consideration of artefacts and processes of DB-Systel.

Client: DB Systel

**Business line:** Transport

Key skills: JEE, TIBCO Active Matrix Service

Grid, JBoss EAP 6

Role: Consulting

Responsibility: Communication with client, R&D and

provide concept of criteria catalog, technology evolution, assessment

**Period:** 10/2012 – 12/2012

Employer: CGI

#### **Door 2 Door Optimiser**

The main aim of the project is to develop middleware layer for travel management systems. This layer implements a finding the best route between given start address and end given destination address and provides consistent API for additional configuration. The software compares the traveling by car, by train, by airplane with a combination of traveling by public transport and returns optimal route to travel management system. The information about tariffs and possible transports obtains the system from GDS, from the portal of Deutsche Bahn and from Google API.

Client: State Mecklenburg-Vorpommern

**Business line:** Travel, Transport und Touristic

Key skills: SOA, Documentation, Prototyping,

IT Architectures, UML, MDA, JAX-RS, RESTful Web Services, WSDL, XSD, SOAP, XML, **JEE**, Java, XSLT, JAXB, HTTP, JSON, OOD, Change-Request Management, SVN, Eclipse, Apache Ant, Bugzilla, EJB 3.1, JDBC, Linux, Tomcat, JEE, Service Provider (GDS – XX1 Middleware, Google API),

Webservices

Role: Architect and Developer

Responsibility: Concept, technical design of

Middleware / Backend, development, Test (JUnit)

**Period:** 04/2012 - 9/2012

Employer: PASS Consulting

#### Component platform of 2nd generation

The component platform provides environment for reusable components. The platform provides also a RAD tool to create component based projects of appropriate version. The components are available for downloaded from component repository and can be assigned to the project. The RAD tool helps developers to build a basic web application using wizard approach, which provides a start point for further development.

**Client:** Software engineering

Key skills: Design Patterns, Object Oriented

Design (OOD), UML 2, **JEE**, Swing, GUI Test (FEST), XML, XSD, XPath, XSLT, jdom, Linux, JDBC, Eclispe,

Hibernate, mySQL, OSGi

**Role:** Architect and Developer

Responsibility: Component specification,

development of RAD tool,

development of build system

**Period:** 3/2010 - 5/2010, 9/2010 - 11/2010,

03/2011 - 12/2011

Employer: PASS Consulting

#### Model driven Ultra-Thin Client Framework

The Ultra-Thin Client Framework is the extension of the JSF standard with the concepts of model-driven software development. The framework provides RAD tool, additional concept of session management and consistent API.

Business line: Software engineering

Key skills: Apache Ant, Apache Log4J, Design

Patterns, OOD, SVN, JEE, UML 2, XHTML, HTML(5), JSF, RichFaces, Struts, Xpath, JDOM, Swing, JUnit, AJAX, Web Sockets, Java Script, Linux, FEST Test, jQuery, Portlets, XQuery, SVN, XQuery, JDBC, Tomcat

(6, 7), JBoss

**Role:** Architect and Developer

Responsibility: Change Request Management,

Estimates, Analysis, Conception, technical Designs, Development (Modeling and code generation for: calculated fields, static analysis of models, service call, sub dialogs, adapters for persistence layer), Test, Documentation, Coaching (in USA Airline Reporting Corporation and India), Prototyping (Deutsche Telekom,

KfW, Dresdner Bank)

Period: 12/2006 - 1/2007, 1 /2007,

4/2007 - 8/2007, 9/2008 - 10/2008, 11/2010-12/2010,

9/2011 - **03/2012** 

Employer: PASS Consulting

#### Model driven Workflow Framework

It is model-driven framework, which provides the modelling tool to model a workflow with user interaction tasks. The framework uses created artefacts to generate the code, which applies modelled workflow in runtime. **Business line:** Software engineering

Key skills: Design Patterns, XML, XSLT, XPath,

JEE, XQuery, Swing, JMS, Eclipse,

UML, EclipseLink

**Role:** Architect and Developer

Responsibility: Concept, Estimates, technical

designs, development

**Period:** 5/2010 - 9/2010

Employer: PASS Consulting

#### KfW Assessment

The main aim of project is to produce a comparative study for KfW banking group. The study compares Frontend technologies and various Web - Frameworks (JSF, RichFaces extension, Struts, Wicket, GWT, Spring WebFlow, JBoss Seam). The results of the study are assessed criteria catalog and documentation, which provides a description of technologies and recommendation for the KfW banking group.

Business line: Software engineering

**Key skills:** Spring Web Flow, Spring 3.0, IBM

Lombardi, JSF 2, jQuery, Struts, Wicket, RichFaces, JBoss Seam, GWT

Role: Consultant

Responsibility: Web-, Workflow - Frameworks

Evolution, Documentation

**Period:** 2/2010 - 3/2010

Employer: PASS Consulting

#### **European Social Fund Bavaria**

The system "ESF Bavaria" provides a computer based data exchange for the European Commission accordingly to article 39 ff VO (EG) Nr. 1828/2006. The application covers very specific requirements for various departments and donees and meets specific GUI requirements for these types of system users.

**Business line:** Public sector

Key skills: Apache (Ant, Log4J), Design

Patterns, OOD, Oracle 11g, SQL, PL/SQL, BIRT, JEE, Query & Reporting Tools, HTML, Java Script, JSF, RichFaces, Linux, JDBC,

Eclipse, TopLink, JPA

**Role:** Software developer

Responsibility: Common technical document

(CTD), Conception, Software design, TDD, Software development (main process, GVN/ZVN, Conception, report development and BI), Bug Fixing, Maintain, Performance Tuning (GC Logging, VisualVM, JProfiler, JMX)

**Period:** 1/2009 – 1/2010

Employer: PASS Consulting

#### **ARC Memo Manager**

Memo Manager is a web application which facilitates the processing and settlement of adjustment memos. ARC Memo Manager provides an easy way for ARC participating travel professionals and carriers to automate they electronically process for memo settlement. This application allows processing of both debit and credit memos, two-way communication, and electronic payments. Data is housed in a secure central repository and remains available for review within ARC Memo Manager.

**Client:** Airline Reporting Corporation (ARC)

**Business line:** Transport & Touristic

**Key skills:** JEE, JSF, RichFaces, Oracle 9i,

TopLink, HTML, XML, Performance tuning (GC Logging, gcview, Jconsole, VisualVM, JProfiler, JMX, AspectJ), Communication, EJB,

JDBC, Weblogic

Role : Developer, Consultant, Trainer

**Responsibility:** Development (Dialogs, Business

logic, Security), Support, Coacher in

USA, Consulting

**Period:** 2/2007 – 5/2007, 5/2008 – 12/2008

Employer: PASS Consulting

#### Frontend Financial Asset Suite

The Financial Asset Suite (FAST) is modular, capsulated management system that modules (Security papers, Bonds, Credit, Bank accounts and Real estates) cover all branches of asset management. Main aim of project is to provide WEB Frontend for FAST Backend.

**Business line:** Banking

Key skills: Web 2.0, AJAX, Java, JSF,

Middleware, JNI, C++, Java Script,

VBA, Eclipse, SOA

Role: Developer

Responsibility: Conception: Migration VBA to WEB

with UTC, developing (Services, Dialogs, HotKeys in Web application)

**Period:** 9/2007 - 4/2008

Employer: PASS Consulting

#### Virtual Travel Organiser 2nd generation

The system provides powerful way for travel professionals and Travel Management Companies (TMC) to access worldwide booking system of flight, hotels and rental cars. Additionally provides the system the services like Active Selling (displaying of additional selling chances), Active Consulting (rule based displaying of additional selling chances) and Active Customer Care (integration with CRM) for travel agents.

**Business** Transport & Touristic, Giller Reisen GmBH **line:** 

Key skills: JEE, Java, SOA, WSDL, JAXB, JSS, XML,

AJAX, JSF, JSS, HTML, Java Script, MS SQL Server, HTTP, Java Script, Struts, JAX-WS,

JDBC, Eclipse, drools, MS SQL Server

Role: Team lead (Indian Team), Coacher,

Developer

**Responsi** Dialogs development, development of CLI - **bility:** Quick Access (Command Line), introduce

rule component, development of Flight Modules (FareSearch, FareQuote), PNR, Shopping Card, Fare Rule (for FareSearch, Fare Quote, Shopping Card), technical conception, integration with ticketing system, QA, documentation; Coaching and

QA of off-shore team in Indian.

**Period:** 12/2006, 6/2007 - 10/2007, 1/2008, 3/2008

- 5/2008, 8/2008 - **1/2009** 

**Employer: PASS Consulting** 

#### **Security and Configuration components**

These are the reusable components. Components support organizational structures with roles, technical permissions, mapping to application permissions, etc. and can be adapted to any customer requirements and integrate into any project environment.

**Business line:** Software engineering

Key skills: JEE, Java, SOA, JSF, HTML, Java

Script, HTTP, Eclipse

Role: Architect, Software - Designer,

Developer

Responsibility: Conception, Decoupling,

development (evaluation of the roles and rights in runtime, Web GUI, build

system)

**Period:** 8/2007 - 9/2007

Employer: PASS Consulting

# **ERP - Solution for Global Industrial and Private** insurance

The project aims is to create an ERP-based solution for industrial and private insurance. The solution provides the functionalities like: CRM, policy and claims processing, accounting, controlling and processing international insurance programs with a large number of insured companies and high data volumes, management of complex individual policies.

Client: BWA, KVV, HVD und Degussa

Business line: Insurance

**Key skills:** MS Dynamics AX, X++

**Role:** Consulter and developer

Responsibility: requirements analysis, conception,

development, software design, development and maintenance using

MS Axapta ERP system

Employment: 50%

**Period:** 08/2004 - 11/2006

**Employer:** K2-Consult

#### Interface syngo Service Software

The main aim of project is to search for the existing methods and the tools for declarative description of user interfaces and to design a specification for GUI language of syngo Servise software. As a proof of concept a language interpreter have to be implemented using ASP.NET technology. The project was a software engineering internship at TUD.

Client: Siemens AG

**Business line:** Software engineering

**Key skills:** .NET, C#, XML, MS SQL

**Role:** .NET developer

Responsibility: Analysis, Design and development

**Period:** 09/2003 - 08/2004

#### WYSIWYG Blanks for hospitals

The main aim of project is the processes automation in eye clinics and the development of software with WYSIWYG blanks that are persistent in database.

Client: about 100 hospitals

Business line: Medicine

Key skills: .NET, C#, XML, MS SQL

**Role:** .NET developer

Responsibility: Analysis, Design and

development

Employment: 50%

**Period:** 06/2002 - 05/2004

#### **Retail Solution**

The aim of the project is the automation of business processes of small trading companies (stock management, human resources, accounting, controlling).

Country: Ukraine

Business line: Retail

**Key skills:** C++, ERP

Role: Developer

Responsibility: Analysis, Design and development

**Period:** 06/1997- 10/2000

**Employer:** Computer System Design