# Marko Krajnc

Senior Full-Stack Java Developer / Software Architect

## Summary

Skilled software engineer and consultant with broad experience in various industries, focusing primarily on IT projects and Java-related technologies for large businesses. Have worked for two of the largest Swiss banks (UBS and Credit Suisse), the largest Swiss insurance company (Swisslife, Zurich) and Swiss telecom (Swisscom, Bern).

## Languages

• Fluent in English, German, Slovenian, Croatian, Serbian

## Skills

- Full-Stack, Web Development, Frontend, Backend, Reporting, Business Intelligence
- Teamwork, Mentoring, Leadership, Analytical Skills, Decision Making
- Scrum, Agile, Test-Driven Development (TDD), Continuous Integration & Delivery (CI/CD)
- Object-Oriented Analysis, Design and Programming (OOAD, OOD, OOP)
- Java (since 1996), Java EE/J2EE/EJB, J2SE, Spring Framework, Spring Boot
- JavaScript, HTML/HTML5, CSS/CSS3, XML, JSON, REST, Python, PHP, Perl, Groovy, Bash
- IntelliJ IDEA, Eclipse/IBM WebSphere, NetBeans, Git, Subversion (SVN), Mercurial (Hg), Maven, Gradle, Ant
- Google Web Toolkit (GWT), Spring MVC, JSP, JavaServer Faces (JSF), Standard Widget Toolkit (SWT), Swing
- SQL, Oracle (since 2001), DB2 (since 2000), SQL Server, Sybase, PostgreSQL (since 2003), MySQL, H2
- JBoss, Apache Tomcat, Jetty, Apache HTTP Server, Nginx, WordPress, JIRA, GitLab, GitHub, Jenkins, Artifactory, Nexus
- JPA, Hibernate, JUnit, Mockito, Web Services, SOAP, Android, Mobile Apps
- Hybris, Docker, Docker Compose, Containers, RaspberryPi, Embedded, JasperReports
- Microsoft Office (Word, Excel, PowerPoint, Outlook, Visio, Project), Google Docs, LibreOffice, OpenOffice, Lotus Notes
- Windows, Linux (Red Hat/RHEL, Ubuntu, Debian, Raspberry Pi OS/Raspbian, Alpine), Unix (Solaris, AIX), FreeBSD

## Positions

- Software Architect
- Software Developer
- IT Consultant
- Project Manager

# Experience

(References available upon request)

#### 06/2022 – 12/2023 Eurodata / ETL Gruppe (Germany's leading tax consulting group) Software Developer (Saarbrücken, Deutschland)

- Designed and developed several parts of the accounting system (edRewe).
- Test code coverage increased by more than 40% (Branch Coverage).
- Developed hundreds of automated tests and UI tests.
- Environment: Eclipse, Java, Spring/Spring Boot, Swing, JPA, Hibernate, PostgreSQL, JUnit, Mockito, JasperReports, Sferyx HTML Editor, Maven, Git, JIRA, Jenkins, Nexus, GitLab, Elastic Search, SonarQube, Scrum, CI, Windows, production: Windows, macOS/Mac OS X, Linux.

Industries

Banking

Insurance

Telecommunications

Government and Public Sector

#### 02/2018 – 12/2021 Deutsche Zentralgenossenschaft Bank (DZ Bank)

Software Developer, Software Architect (Frankfurt, Germany)

- Designed and developed several parts of the Profit & Loss Analyser application (P&L Analyser, PLA).
  - Optimized performance of processing several hundred million records per day (BigData, OLAP).
- Successfully migrated highly customized JasperReports Server application to the latest version.
- Environment: IntelliJ IDEA, Eclipse, Java, Java EE/EJB, Spring/Spring Boot, Spring Batch, Swing, JPA, Hibernate, Lombok, JUnit, Mockito, JBoss 7.2, Apache Ignite, JasperReports Server, JavaScript, Groovy, Python, Bash, Sybase 16, Oracle, SQL Developer, Maven, Ant, Git, Mercurial, JIRA, ServiceNow, Jenkins, Artifactory, Nexus, GitLab, Splunk, SonarQube, Scrum, TDD, CI, ETL, Outlook, Lotus Notes, Windows, production: Windows, Linux, Solaris.

Within hours I can create a complete prototype application using any of these technologies: Java, JavaScript, Spring MVC, SWT, Swing, Oracle, DB2, SQL Server, PostgreSQL, MySQL, Maven, Gradle!



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| 01/2014 – 04/2018 | Telekom Slovenia<br>Software Architect, IT Consultant (Ljubljana, Slovenia)   |
|-------------------|---|
|                   | <ul> <li>Designed several parts of a business support system (BSS).</li> <li>Designed and maintained several application programming interfaces (APIs).</li> <li>Led and coordinated the development of several BSS parts, functions and features.</li> <li>Proposed major solutions for several challenges on a project.</li> <li>Environment: Java, IBM BPM, Hybris, SAP, SAP CC, .NET, Oracle; production: Linux, Windows, Solaris.</li> </ul>   |
| 03/2014 – 04/2015 | Stadtwerke München<br>Software Developer (Munich, Germany)  |
|                   | <ul> <li>Extended existing iPad application with several functions (mobile process support during operation and maintenance, MBI/MIA).</li> <li>Extended existing SWM application generator with Bootstrap 3.</li> <li>Environment: IntelliJ IDEA, Eclipse, Java, GWT, PhoneGap, SAP, Windows; production: iOS, Linux.</li> </ul>   |
| 04/2012 – 12/2013 | Bausparkasse Schwäbisch Hall<br>Software Developer, Software Architect (Schwäbisch Hall, Germany)   |
|                   | <ul> <li>Designed and developed a web-based process inventory system as a lead developer.</li> <li>Environment: Eclipse, Java, Maven, GWT, UiBinder, AJAX, MVP, Spring Framework, JPA, Hibernate, Oracle, H2 Database, Jira, HP QC, HP ALM, Lotus Notes, Windows; production: Linux.</li> <li>Developed new application - Sammlerfreigabe (Java, Swing, Spring, Eclipse, Oracle, DB2)</li> <li>Refactored existing application - Elektra (Java, Eclipse)</li> </ul>                                   |
| 10/2011 – 02/2012 | Outlet City Metzingen / HOLY AG<br>Software Developer (Graz, Austria / Metzingen, Germany)  |
|                   | <ul> <li>Developed parts of a new corporate website and eshop using e-commerce, multichannel PCM Hybris.</li> <li>Integrated SOLR and Nutch for website fulltext search.</li> <li>Developed a product, media, price and stock import/export (impex).</li> <li>Environment: Eclipse, Java, Hybris, Hybris Accellerator, Windows; production: Linux.</li> </ul>   |
| 06/2011 – 09/2011 | RWA Raiffeisen Ware Austria AG<br>Software Developer (Graz, Austria)  |
|                   | <ul> <li>Developed a connection between Hybris E-Shop and SAP Back-End (Inquiries, Reservations, Orders).</li> <li>Developed a geographic store search.</li> <li>Developed a tire search based on the EDIWheel standard.</li> <li>Environment: Eclipse, Java, Hybris, SAP, SOAP, WebServices, XML, Windows; production: Linux.</li> </ul>   |
| 04/2011 – 06/2011 | IZUM – Institute of Information Science<br>IT Consultant (Maribor, Slovenia)  |
|                   | <ul> <li>Analysed current software development process, identified critical points and prepared suggestions for improvements.</li> <li>Analysed and compared 14 present web-based Java development frameworks, prepared suggestions for the best choice. Compared technologies: JavaServer Pages (JSP), JavaServer Faces (JSF), Struts 2, Spring Web MVC, Spring Web Flow, Wicket, Tapestry, Java FX, Google Web Toolkit (GWT), GWT with UIBinder, Smart GWT, Ext GWT, GWT Mosaic, Vaadin.</li> </ul> |
| 08/2010 – 06/2011 | HUMANIC (Leder & Schuh International AG)<br>Software Architect, Software Developer (Graz, Austria)  |
|                   | <ul> <li>Prepared a complete software architecture for foot scanner software (hardware / GUI / server).</li> <li>Developed a complete Footscanner-GUI with HTML5 and WebGL.</li> <li>Environment: Eclipse, Java, GWT, HTML5, WebGL, AJAX, Embedded, Windows; production: Windows.</li> <li>Integration Points: Footscanner Hardware, Plastic Card Printer, Barcode Scanner, Relais for Digital Signage, E-Shop Server.</li> </ul>   |

| 04/2010 – 08/2010 | SRC Infonet<br>Software Architect, IT Consultant (Maribor, Slovenia)   |
|-------------------|--|
|                   | <ul> <li>Designed a medical system for remote patient management.</li> <li>Environment: UML, Microsoft Visio, PowerDesigner, Oracle, WebServices, Embedded, Windows, SQL.</li> </ul>   |
| 08/2009 – 02/2010 | myMEDBox GmbH<br>Software Developer (Vienna, Austria / Maribor, Slovenia)  |
|                   | <ul> <li>Designed and developed a web-based medical system.</li> <li>Environment: Eclipse, GWT, HTML, XML, JavaScript, Jetty, JasperReports, iReport, PostgreSQL, Windows, SQL; production: Unix (Linux).</li> </ul>   |
| 07/2009 – 03/2010 | PayLife Bank<br>Software Architect, Software Developer (Vienna, Austria / Maribor, Slovenia)   |
|                   | <ul> <li>Prepared a detailed concept for integration of a new information system with existing central ATM management system.</li> <li>Developed a new animated GUI for automated teller machines (ATM) in Austria (2,700+ ATM machines,</li> </ul>  |
|                   | <ul> <li>several million users).</li> <li>Environment: Eclipse, Java, Swing, XML, Web Services, SOAP, SQL Server, Embedded, Lotus Notes; production: Windows.</li> </ul>   |
| 04/2009 – 04/2009 | Farmed<br>Software Architect, IT Consultant (Maribor, Slovenia)  |
|                   | <ul> <li>Prepared an analysis for a new medical system for a Slovenian hospital.</li> <li>Environment: UML, OpenOffice.org, Windows.</li> </ul>  |
| 12/2008 – 08/2011 | JUB<br>Software Architect, Software Developer (Maribor, Slovenia)  |
|                   | <ul> <li>Designed and developed a web-based / rich-client system for construction calculations for a major Slovenian company.</li> <li>Environment: Eclipse, Java, GWT, JavaScript, HTML, XML, SQL, PostgreSQL, SWT, Apache Derby, Windows; production: Unix, Linux, Windows.</li> </ul>               |
| 11/2008 – 03/2009 | <b>Wira Grafik GmbH</b><br>Software Architect, Software Developer (Burglengenfeld, Germany / Maribor, Slovenia)  |
|                   | <ul> <li>Designed and developed a web-based system for press machine sales.</li> <li>Environment: Eclipse, SWT, HTML, JavaScript, Java, SQL, PostgreSQL, Windows; production: Unix, Linux.</li> </ul>  |
| 01/2008 – 01/2009 | Farmadent<br>Project Manager, IT Consultant (Maribor, Slovenia)  |
|                   | <ul> <li>Analysed the complete wholesale process of a major pharmaceutical distributor in Slovenia and proposed several business process optimizations.</li> <li>Managed the development of a new wholesale software system and migration from legacy systems.</li> </ul>                              |
|                   | <ul> <li>Environment: OpenOffice.org, Microsoft SQL Server, Delphi, Windows.</li> </ul>  |
| 08/2005 – 08/2021 | Cursor<br>Project Manager, Software Architect, Software Developer, DB Admin (Maribor, Slovenia)  |
|                   | <ul> <li>Lead development for core business products for small businesses, wellness and publishing.</li> <li>Migrated data from legacy systems into new information system.</li> <li>Environment: Eclipse, Java, SWT, MVC, HTML, XML, UML, JasperReports, iReport, Jetty, JUnit, Hibernate,</li> </ul> |

Ant, Gradle, PostgreSQL, Windows; production: Unix, Linux, Windows.

| 12/2005 - 07/2008 | Nova Ljubljanska banka / Gorenjska banka / Banka Celje / KBC<br>Software Architect, IT Consultant (Ljubljana, Slovenia / Brussels, Belgium)  |
|-------------------|--|
|                   | <ul> <li>Designed several parts of a new Front End Application including EURO support, multibanking support,<br/>term deposits and savings, black lists, migrations of special order payments for the largest bank in<br/>Slovenia (1,200+ users).</li> </ul>  |
|                   | <ul> <li>Participated in the acquisition of the project at KBC in Belgium.</li> <li>Environment: IBM WebSphere, Java, JSP, CICS, Cobol, DB2, Microsoft Visio, Microsoft Project, UML, ERwin, HTML, XML, Windows XP; production: Unix, Solaris, Sun OS, IBM Mainframe, OS/400.</li> </ul>                 |
| 11/2005 - 12/2005 | Telekom Slovenije / Trivium<br>Software Developer (Ljubljana, Slovenia)  |
|                   | <ul> <li>Developed a web-based software system for the national Slovenian telecom provider.</li> <li>Environment: BEA WebLogic, Java, JSP, JavaScript, HTML, XML, UML, SOAP, WSDL, WebServices, J2EE</li> </ul>  |
| 03/2004 – 11/2005 | Slovenian Government / SRC.SI<br>Software Architect, Software Developer (Maribor / Ljubljana, Slovenia)  |
|                   | <ul> <li>Designed the core of the national car registration system (for 1.5 million cars) (IBM WebSphere, Oracle).</li> <li>Applied EU guidelines to the information system.</li> <li>Environment: IBM WebSphere, Java, JSP, EJB, XML, UML, Oracle, SQL, TOAD, Windows XP, Lotus Notes;</li> </ul>       |
| 02/2003 - 02/2004 | production: IBM Mainframe Z/OS.  |
| 02/2003 - 02/2004 | Project Manager, Software Architect, Software Developer (Maribor, Slovenia)  |
|                   | <ul> <li>Designed and developed a wellness management system (for small businesses) (Java, Eclipse, PostgreSQL, MySQL, SQL, XML, UML, Eclipse, Windows, Unix, Linux).</li> <li>Built an online electronic book traversal system for a major website (environment: XML, Apache HTTP)</li> </ul>           |
|                   | Server, Perl, Linux).  |
|                   | <ul> <li>Designed a portfolio management system (for small business) (Delphi, MS SQL Server, Windows).</li> <li>Designed a prototype for an electronic medical record system for a medical practitioner in Slovenia (Java, Eclipse).</li> </ul>  |
| 01/2002 – 01/2003 | Swisscom<br>Software Developer (Bern, Switzerland)   |
|                   | • Developed several features and upgrades in the existing strategic application for national Swiss telecom provider.   |
|                   | <ul> <li>Environment: Java, JBuilder, NetBeans, JSP, RMI, XML, J2EE, JBoss, Tomcat, UML, Oracle, SQL, TOAD,<br/>Windows NT; production: Unix, Linux.</li> </ul>  |
| 03/2001 – 12/2001 | Swiss Life (Rentenanstalt) / Thales IS / Sigma<br>Software Developer, Software Architect (Zurich, Switzerland)   |
|                   | <ul> <li>Implemented several features and upgrades in the existing system for the largest Swiss insurance<br/>company using Smalltalk.</li> </ul>  |
|                   | <ul> <li>Designed and developed a testing system in Java.</li> <li>Environment: Smalltalk, VisualAge for Smalltalk, VisualAge for Java, AWT, Swing, XML, UML, Oracle, SQL, CORBA, UML, VisiBroker, LiveLink, ENVY, TestDirector, CSC Micado Frameworks, Rational Rose, Windows NT, Unix, AIX.</li> </ul> |
| 11/2000 – 02/2001 | UBS / Credit Suisse / Sigma iFace<br>Software Architect, Software Developer, Software Mentor (Maribor, Slovenia / Olten, Switzerland)  |
|                   | • Developed a web-based reporting system for major Swiss banks.  |
|                   | <ul> <li>Designed and developed an application for insurance agencies in Smalltalk.</li> <li>Environment: Smalltalk, VisualAge for Smalltalk, DB2/UDB, SQL, UML, HTML Frontend, Windows NT/2000.</li> </ul>  |
| 09/1998 - 06/2000 | IZUM – Institute of Information Science<br>Software Architect, IT Consultant, Software Developer (Maribor, Slovenia)   |
|                   | <ul> <li>Developed persistency and graphical user interface frameworks for a library application in Java.</li> <li>Environment: Java, JBuilder, VisualAge for Java, AWT, Swing, XML, UML, CORBA, RMI, Object Oriented Database ObjectStore, Windows NT.</li> </ul>                                       |
| 10/               | lithin hours I can create a complete prototype application using any of these technologies.  |

<u>Within hours I can create a complete prototype application using any of these technologies:</u> Java, JavaScript, Spring MVC, SWT, Swing, Oracle, DB2, SQL Server, PostgreSQL, MySQL, Maven, Gradle!

| 03/1998 – 04/1998 | <ul> <li>TIS</li> <li>Software Developer (Maribor, Slovenia / Zagreb, Croatia)</li> <li>Developed modules for a banking application in Smalltalk.</li> <li>Environment: Smalltalk, Object Studio, Object Relational Database Cincom UniSQL, SQL, Windows 95/98.</li> </ul>   |
|-------------------|--|
| 11/1997 – 08/1998 | <ul> <li>Independent</li> <li>Software Developer, Software Architect (Maribor, Slovenia)</li> <li>Developed a GUI framework for business applications in Java (IBM VisualAge for Java, AWT, Swing, UML).</li> </ul>  |
| 06/1992 – 10/1997 | <ul> <li>COR&amp;FJA OdaTeam / Merkur Versicherungen (Austria, Slovenia, Croatia) / Hasička poistovna (Slovakia)</li> <li>Software Developer, Software Architect, Project Manager (Maribor, Slovenia)</li> <li>Developed major parts of a complete insurance solution used in 10 European countries.</li> <li>Designed and developed a CASE tool.</li> <li>Designed and developed an object database management system (ODBMS).</li> </ul> |
|                   | <ul> <li>Environment: Visual Smalltalk Enterprise, Team/V, Digitalk Smalltalk/V, Object Oriented Database,<br/>Microsoft Office Integration, MVC, UML, Java, VisualAge for Java, AWT, Swing, Windows 3.11/95, OO,<br/>OOAD, OOD, OOP, object-oriented design, object-oriented analysis, object-oriented programming.</li> </ul>  |
| 11/1991 – 05/1992 | <ul> <li>University of Maribor</li> <li>Software Developer (Maribor, Slovenia)</li> <li>Developed software for analysis, synthesis and simulation of dynamic linear systems.</li> <li>Environment: Borland Pascal for Windows, Windows 3.11.</li> </ul>  |
| 10/1987 – 10/1991 | <ul> <li>Non-Commercial<br/>Software Developer (Maribor, Slovenia)</li> <li>Developed several programs in Assembler, Basic, Pascal, C and C++ for national competitions.</li> <li>Have written several research articles and papers for national competitions.</li> <li>Environment: Commodore 64, MS-DOS, Windows 3.11, Basic, x86 Assembler, Borland Pascal, C/C++.</li> </ul>   |

# Education

| 10/1993 – 06/1999 | Technical University Graz<br>Master of Science (B.Sc.+M.Sc.) (Graz, Austria)  |
|-------------------|---|
|                   | <ul> <li>Masters Degree in Telecommunications and Computer Science with honors.</li> <li>Master thesis in software architectures.</li> </ul>  |
| 09/1989 - 06/1993 | II. Gymnasium Maribor<br>High School (Maribor, Slovenia)  |
|                   | <ul> <li>Bronze medal at the 34. Mathematical Olympics in Istanbul, Turkey.</li> <li>Won several awards at national and international competitions including mathematics, physics, chess, computer science and research.</li> </ul> |
| 09/1981 - 06/1989 | Primary School of Malečnik<br>(Malečnik, Slovenia)  |
|                   | • Won several prizes and awards at regional and national competitions including mathematics, physics, chess, computer science, research, logic and construction.  |

## **Additional Skills**

- Rational Unified Process (RUP), Unified Modeling Language (UML), Use Cases,, Extended Event-Driven Process Chain (eEPC)
- Pair Programming, Extreme Programming (XP), Dependency Injection, ETL (Extract, Transform, Load), Open Source
- Smalltalk (since 1992), C/C++, Delphi, Pascal, Free Pascal, Oberon, Basic, Occam, PL/SQL, T-SQL, Shell, Assembler
- Borland Delphi, JBuilder, VisualAge Product Family (since 1997), Visual Smalltalk, WebLogic, Splunk, SonarQube
- MetaTrader, MetaEditor, Strategy Tester, MQL4, MQL5, Forex, FX, Android SDK, Android Developer Tools (ADT)
- JIRA, ServiceNow, HP Quality Center (HP QC), HP Application Lifecycle Management (HP ALM), BugZilla, Dev Track
- ClearCase, Visual SourceSafe, CVS, Rational Rose, PowerDesigner, ERwin, JasperReports Server, iReport, WindowBuilder Pro
- RDBMS: Microsoft Access, Jet-Engine, Java DB, Apache Derby, HSQL, BTrieve, Interbase
- ODBMS: ObjectStore, UniSQL, Tensegrity, Proprietary
- Servlets, JavaBeans, AJAX, WSDL, Axis, CORBA, RMI, RPC
- SAP, CICS, TCP/IP, HTTP, FTP, CGI, WWW, JDBC, ODBC, HQL, RS232, SMTP, OpenGL, Open Inventor, VRML, WebGL, RXTX, Lex/Yacc, MVC, MVP, JFC/Swing, AWT, iText, Bouncy Castle, Lombok, Apache Ignite, TOAD, SQuirreL SQL Client
- MS-DOS, ClearOS, SunOS, Irix

### Miscellaneous

- Held speeches and led workshops on several conferences including OTS and ELAG.
- Visited several conferences across the USA and Europe (GWT.Create, OOPSLA, Smalltalk Solutions, Digitalk Developers Conference, JMLC, NT Conference).
- Hybris Training (1 week in November 2011, 1 week in November 2017, 1 week in December 2017).
- Microsoft invited me to work for them in 1998 (at their headquarters in Redmond, USA).
- Hobbies: hiking, running, cycling, swimming, badminton, travel, instrumental music.