

## Curriculum Vitae

### Milan Trnić

Software Architect, Senior Software Engineer

Address: Belgrade Serbia, Vancouver Canada  
Email: [milan@konceptis.com](mailto:milan@konceptis.com)  
Languages: English: fluent, French: learning, Serbian: native  
LinkedIn: <http://ca.linkedin.com/in/milantrninc>  
Citizenship: Serbian, Canadian

#### Profile

A professional with over 13 years of industry experience, participating in most of the activities in the software development and integration process. Successfully performed in the roles of software architect, system analyst, domain and data modeller, software engineer and developer, technical team lead, specification writer, course instructor, conference delegate and presenter.

I have worked in different domains, including insurance (life and health), telecom (ordering system, number portability), geospatial (development of the Geo-Web), cable TV (device monitoring, control and automation). My focus, generally, are distributed software systems for different target domains.

#### Highlights

- Broad skill range, in-depth understanding of computer systems; active in the industry since 1986.
- Strong software/system architecting skills. Architected various software elements including distributed / SOA based ones. Worked within TOGAF framework, used RM-ODP, 4+1 Model View and RUP.
- Excellent modelling skills. Worked with various approaches (object, relational, hierarchical, ER, custom) and domains. Authored elements of Geography Markup Language. Extensive XML modelling experience.
- Strong knowledge of database concepts and experience with relational and XML databases.
- Excellent software engineering skills. Researched, analyzed, planned, designed and implemented ideas from conception through deployment.
- Excellent knowledge of various development platforms, concepts and tools: Java / J2EE, distributed platforms (SOA, CORBA), XML based technologies, .NET, C++ and many others.
- Very good communication skills: wrote presentations, articles, OGC / ISO specifications, delivered courses. Attended technical workshops and conferences, presented technology achievements and ideas and advocated solutions and approaches.
- Successfully collaborated with people from a large number of well known international organizations including Microsoft, Oracle, OpenGIS, Autodesk, ESRI, Hitachi, NTT Japan, Shell Oil, government bodies (Canada, US, UK, EU), and many others.
- Worked on significant number of projects throughout my career. The list can be found at <http://www.konceptis.com> (Experience, Projects View)

#### Employment History

2011	Senior Consultant	Qualysoft / Telenor, Belgrade
2010 - present	Tutor, HL7 E-Learning	HL7 International, USA
2005 - present	Owner	Konceptis Software, Vancouver
2008 - 2010	Consultant, Enterprise Architecture	Pacific Blue Cross, Vancouver
2006 - 2008	Consultant, System Analyst	Telus Communications, Vancouver
2000 - 2006	Product Architect, Software Engineer	Galdos Systems Inc, Vancouver

1999	Consultant, Configuration Management	Creo Inc.(Kodak) , Vancouver
1997 - 1999	Software Engineer	Scientific Atlanta (Cisco), Vancouver
1986 - 1994	coop terms	various companies, Sarajevo

### ***Professional Experience***

*2011* *Senior IT Consultant* *Qualysoft / Telenor, Belgrade, Serbia*

*Technology: J2EE, JBossAS, Enterprise Architect, Oracle RAC, SoapUI, JBossDS, NetBeans*

- Senior consultant in development of Mobile Number Portability solution in a SOA web services based environment.

*2010-present* *Tutor, HL7 E-Learning* *HL7 International, USA*

*Technology: Health Level Seven (HL7) Information Standard*

- Tutor at HL7 online (e-learning) course.

*2005-present* *Owner* *Konceptis Software, Vancouver, Canada*

*Technology: J2EE, XML, RSS, Apache, Oracle*

- Developed and operated a content-feed web service for analysis, selecting and distribution of RSS based Internet content (articles, news) to multiple web sites with the goal of automating the whole content generation process.
- Consultant in the area of development of web based distributed systems (clients listed below in the C.V.).

*2008 – 2010* *Consultant, Enterprise Architecture* *Pacific Blue Cross Vancouver, Canada*

*Technology: J2EE, .NET, SONIC ESB, iWay, Oracle / SQL Svr., TOGAF, Sparx EA, RUP, 4+1 Model, CICS, Mainframe*

As a member of Enterprise Architecture Team and reporting to EA Director, worked on strategic transitioning and consolidation of PBC legacy information systems to modern platforms and paradigms. The new approaches taken were based on Service Oriented Architecture, utilizing Enterprise Service Bus with .NET and J2EE platforms.

- Specified solution architecture for various elements in development and integration of a new Benefit Management System to replace legacy mainframe systems.
- Delivered architecture, analysis, overview, governance, guideline and presentation documents.
- Provided appropriate architectural guidelines to business and technical teams.
- Performed domain and relevant data modelling. Participated in defining of business object models and messaging formats.
- Developed prototypes, explored market offerings of software products.
- Mapped the internal business process of paper documents consumption (from receiving and scanning to utilization and archiving) and recommended short term improvements and a long term approach to achieving paperless office.
- Researched the company's needs and the potential candidates for Enterprise Document Management solution including Documentum, OpenText, Alfresco, and others. Specified the candidate architectures and recommended short and long term solutions.
- Analyzed proposed integration of company's systems with anticipated nation-wide health insurance communication network based on NeCST, an HL7 communication protocol. Specified high level architecture, necessary improvements to current systems, estimates and timelines.

- Within the architecture team, responsible for the communication gateway subsystem. Maintained the architecture, developed modifications, specified governance process, defined future architecture.
- Participated in the initial work for data conversion project, a major effort to migrate whole of company's data from legacy platforms to new ones.

2006 – 2008

*Consultant, System Analyst**Telus Communications  
Vancouver, Canada*

Reporting to Project Manager, worked on project “Imagine” - development of large new generation ordering system. The system is based on distributed platforms, notably J2EE and Amdocs OMS and uses a large number of other technologies including mainframe and custom ones. Participated in two official phases and releases.

*Technology: J2EE, Amdocs OMS, mainframe, large number of other technologies*

- Served as a liaison between business, architecture and technical teams. Collaborated with solution and enterprise architects, business analysts, agents, developers, testers and managers.
- Delivered design and interface specifications, system, impact and problem analysis, change request documents.
- Translated business requirements and architectural guidelines into design and collaborated with developers to ensure quality implementation.
- Analyzed various supporting and legacy systems and designed adapter solutions.
- Troubleshoot defects by reviewing application code, business rules and processes, suggested solutions and provided design changes and guidelines to implement fixes.
- Designed components for high throughput and demanding performance requirements (e.g. update of 300K accounts).
- Led execution of tasks and coordinated teams in the process.

2000 – 2006

*Product Architect, Senior Software Engineer**Galdos Systems  
Vancouver, Canada*

Reporting to Product Manager and CEO, worked on the development of distributed web infrastructure (geo-spatial web) for wide area geo-spatial domain. The environment required intensive use of XML (content), Java, J2EE and .NET (procedural) and many international specifications and standards (OpenGIS, W3C, ISO, IETF).

*Technology: J2EE, GML, XML, ISO, OpenGIS, RM-ODP, 4+1 View Model, .NET, XHive(XML db), Oracle*

- Author, editor or contributor to several OpenGIS specifications and discussion papers some of which became ISO standards (GML, WFS, Filter, WMS). Researched geospatial aspects such as geometry, topology, metadata, coordinate reference systems, styling, ISO compliance. Contributing author to the first book on Geography Markup Language. Participated in standard development for different geospatial domains such as location based services. Created UML and XML models, wrote and managed GML schemas.
- Architected, led teams and developed FreeStyler suite – a web mapping service for interoperable discovery, retrieval and visualization of geo-spatial (GML) data. Contributed to the architecture and refactoring of Cartalinea, a geospatial data web service based on OpenGIS WFS interface and GML. Architected and implemented interoperable, web-based Coordinate Reference System Registry synchronized with the European Petroleum Survey Group (EPSG) CRS database.
- Participated in architecture specification, requirements analysis, information modelling, integration and / or development for a number of geospatial systems, including local land information model, national transportation sensor network, SVG map and routing service for mobile phones, hydrographic data mapping, census data management. Performed analysis and mapping of relational models to GML.
- Designed and developed APIs, frameworks, object models, applications, Java Swing GUIs. Some examples are GML object models and APIs, GML encoding and API for JPEG2000, GUI framework for Javascript (AJAX-like) and Java, map viewer client, 3D GML modeling client, emergency response client, SAML / XACML security portal.

- Led a project to evaluate a number of commercial databases, such as Oracle and X-Hive targeted for storing of geo-spatial data.
- Delivered GML courses, participated in the international geospatial technical conferences, presented and advocated ideas and approaches, active in OpenGIS working groups.

1999

*Consultant, Configuration Management**Creo Inc. (Kodak)  
Vancouver, Canada**Technology: Unix, shell, Perl, ClearCase*

Worked on release management for company's large digital printing workflow software system.

1997 – 1999

*Software Engineer (junior through senior)**Scientific-Atlanta (Cisco)  
Vancouver, Canada*

Reporting to the Manager of R&D, participated in the full cycle design, development, implementation, and deployment of the three-tiered distributed software system for monitoring and automated control of headend systems deployed by cable companies.

*Technology: C++, Corba, MFC, Ilog Views, Windows, Solaris*

- Performed requirements analysis, design and resource estimation.
- Participated in development and refactoring of the software architecture and design.
- Developed and maintained Data Services component of the system.
- Designed, developed and maintained a number of other components and tools, such as parsers, notification support, device inventory and configuration, software installation scripts.
- Designed and developed GUI interfaces using MFC and Ilog Views. Developed a Java AWT device monitoring front-end (applet).
- Implemented support for various device protocols such as RS-485, RS-232, LonWorks, Iris.
- Organized the implementation of the design as a leader of 2-3 member groups.
- Performed on-site installation and performance analysis.

1986-1994

*co-op terms**Sarajevo, BiH*

These were similar to coop terms. I was working while studying, and not all the time. The total would add up to 1-2 years.

*Roles: Software developer, Software tester, Course instructor, Desktop publishing operator**Companies: City of Sarajevo, ZOI-DATA (organizer of Winter Olympic Games), Evening News, Svjetlost Publishing**Technology: DOS, Assembler, Pascal, Windows, IBM PC*

### **Education, Training and Designations**

2005	M.Sc. designated by credential evaluation	The Trustforte Corporation, NY, USA
1996	5 yrs program: Electrotechnic School, Computer Technology and Informatics	University of Niš, Niš, Serbia
1987	Computer Programmer Diploma	Grammar School, Sarajevo, BiH
2010	Health Level 7 (HL7) training	HL7 International (hl7.org), MI, USA
2006	Certified Scrum Master	NetObjectives, Bellevue, WA, USA
1998	UML for requirement Analysis	Software Productivity Centre, Vancouver

(and a number of additional courses since 1996)

### ***Selected Publications***

(Full list at <http://www.konceptis.com> - Publications)

- **[Specification, contributing author]** "Geography Markup Language", OpenGIS, 2000 – 2003  
<http://www.opengeospatial.org/standards/gml>
- **[Book, contributing author]** "Geography Mark-Up Language: Foundation for the Geo-Web", John Wiley & Sons, Ltd., 2004, (The first book on GML language.)  
<http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0470871539.html>
- **[Article, author]** "OO, XML, and GML: Are angle brackets a flexible modeling material?", JavaWorld, 2005 <http://www.javaworld.com/javaworld/jw-09-2005/jw-0905-xml.html>
- **[Presentation, author]** "GML Application Schemas", 2002, Vancouver, BC,  
<http://www.trninic.info/software/GMLAppSchemas.ppt>

### ***Services and affiliations***

2006 - present	Volunteer Reviewer	IEEE Software, DC, USA
2006 – present	Member	International Association of Software Architects
2003 – 2006	Revision Working Groups	Open Geospatial Consortium, MA, USA
2002 – 2005	Associate Member	World-Wide Institute of Software Architects