

## Zoran Stepanoski

Electrical engineer for computer technology

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## Work experience

### Freelancer Software Developer

Želvoz doo, Smederevo - plant for railway vehicles maintenance

March 2023 - Jun 2023. (3 months)

- Planning the work lists for tomorrow's working day depending on the available workforce. The goal of this project was to create a new module which would enable the head of the organizational unit to organize and plan what are the work duties for tomorrow and the assignment of employees to the appropriate tasks using textual UI.

Technology used: SCO UNIX, Informix Database, i4gl programming language and iSQL for reporting.

### Senior Oracle PL/SQL developer

IGT doo, Beograd

April 2022 - Dec. 2022

Maintaining existing procedures, functions, views, triggers and developing new database functionalities for sports betting software. My main task was to upgrade and optimize existing PL/SQL procedures and functions, Queries in materialized and classical views.

### Software development engineer

2D Soft doo, Novi Sad

May 2021 - April 2022

Design, development, implementation and maintenance of POS solutions for catering businesses – Delphi XE2, InterBase DB, C#, MS VisuaStudio 2019.

- POS Project in Montenegro, adjustments of existing POS software and creating new functionalities for new law regulations
- POS Project in Serbia, adjustments of existing POS software and creating new functionalities for new law regulations (eFiscalization)

## Software development engineer

### Gencom software - Belgium based company with office in Smederevo

Feb. 2013 - Apr. 2021

Design, development, implementation and maintenance of ERP solutions for the fashion industry - Delphi XE4, XE7 (and later Delphi 10) implementing FireMonkey framework for developing cross-platform client applications, VCL, Oracle 11g and 12c, PL/SQL, open-source PL/JSON (REST/JSON), VSS and Git (Tortoise).

- Variety of different apps for Android and iOS smartphones:

Link to android apps on a Google Play Store:

<https://play.google.com/store/apps/developer?id=Gencom&hl=en&gl=US&pli=1>

- Link to iOS apps on Apple Store:

<https://apps.apple.com/us/developer/general-computers/id969093826>

- ERP solution:

- o POS (Point of Sales) application for clothing and footwear stores through which fiscal invoices are printed, tracking stocks, orders or shipping goods, order goods through online stores and etc.

<https://www.gencom.be/oplossingen/retail-pos/kassasoftware.html>

- o FashPlus ERP solution for clothing and footwear sales companies

<https://www.gencom.be/oplossingen/wholesale/>

- o FinadWin financial package

<https://www.gencom.be/oplossingen/finance/>

- o FashMaker ERP solution for production processes optimization

<https://www.gencom.be/oplossingen/production/>

- Omnichannel: Development of REST/JSON based Oracle 12c APIs using open-source PL/JSON packages. The goal of this project was to move all business logic from client side (fat client) to the DB side (fat back-end), creating REST/JSON APIs callable from the any type of client (iOS, Android, Web-sites, desktop application) side using POS (Point of Sales) functionalities. The whole system consists of Oracle DB, Windows API gateway service (for security reasons and load balancing) and clients apps. The only purpose of Windows API gateway service was to verify and forward REST/JSON requests to the stored procedure in Oracle DB send back the results in JSON format. It was completely unaware of business logic incorporated on DB server side. DB server was behind the firewall, so only Windows API gateway service was able to communicate with DB. There is also support for HTTPS communication protocol implemented.
- Oracle BI, creating and optimizing SQL queries for reporting and business analytics purposes.

## Software development engineer

### OtaCo Engineering-Smederevo

Dec. 2011 - Feb. 2013

Member of the team for design, development and implementation of level 2 applications for real-time monitoring and control of refueling at the Oil Tanking fuel depot in Terneuzen, Netherlands - Visual Studio 2010, C#, WCF, WPF (XAML), OPC DA.

I would also like to point out the project where I had to write cross compiler which was translating some custom-made language into C-like programming language – Visual Studio 2010, C#, regular expressions and recursion calls to break the syntax of custom-made language into tokens for translating to C.

## Information architect

### United States Steel Corporation-Smederevo

Feb. 2009 - Nov. 2011

I was responsible for the administration of Oracle Application Servers, providing support to the software development team in solving JAVA software problems, code optimization, testing and integration of solutions using Oracle development tools. I designed, developed and implemented a system for recording hot meals consumption in canteens. The system had completely replaced paper vouchers with RFID readers: Oracle JDeveloper, Oracle 10g PL/SQL, implementation of communication protocol with RFID card readers (communication and control of electronic RFID readers).

On this position I was responsible to check the health of Oracle DB and application servers. I created a dozen of bash RHL scripts which were pinging the DB servers and application server's instances and hosting HW. In a case of failure of any of them bash script was sending text message to me and other responsible people.

## ERP consultant

### United States Steel Corporation HQ – Pittsburgh, USA

Feb. 2007 - Jan. 2009

I was the member of the international team as an ERP consultant. This experience helped me understand how important ERP solutions are for the successful operation of a large company and allowed me to access and learn about the latest technologies such as Oracle SOA and Oracle Fusion Middleware tools (BPEL / OSB) which were mostly used as ETL tools. Although they were not primarily designed as ETL tools, I learned workflows, transformations using XSLT and handling different types of sources and destinations such as CSV files, variety of databases, FTP servers and shared folders. I participated in all phases of the development of the software solution for connecting the legacy systems with the new information system in the U.S. Steel Corporation, such as developing, testing, documenting and implementing software solutions. BPEL and ESB (later OSB) were used for creating web services for orchestrating business processes and service mediation and transformation. Web services were deployed and running on dedicated Oracle Application Server. Technology used: SOAP/WSDL, Oracle SOA Fusion Middleware (BPEL – Business Process Execution Language, OSB – Oracle Service Bus)

## Team leader

### United States Steel Corporation – Smederevo

Dec. 2003 - Jan. 2007

I was leader of a team of experienced programmers who have been involved in the design and development of level 2 software for production monitoring on a continuous casting machine in a steel making plant using data acquisition from variety of PLCs and as a part of process control group (SSL2, SSL3 projects, Continuous casting machine – Realtime measuring slab lengths).

Responsible for the following activities within the team:

- Design, development and implementation of background processes for data acquisition for casting machine using LIBNODE open-source libraries and OPC for communication with SIEMENS S7-400 PLCs, writing Java front-end UI using Java Swing and PostgreSQL and Oracle databases.
- Micro management
- Writing Technical Design Documentation (TDDs) and Functional Design Documentation (FDDs)
- Countless hours and meetings with end users to define system requirements for system improvements or new functionalities

## Leading software developer

### Milan Blagojević AD - Smederevo

Jan. 2001 - Nov. 2003

At the position of a leading programmer, I was responsible for maintenance of existing and developing of new financial business system modules. I also designed and developed electronic device which was counting the total number of produced semi products on steel sheet metal press. Device had capability to communicate with database so data like employee first and last name, name of semi products which had to be produced were visible on LCD screen. Those data were entered by device keyboard and saved in database automatically. I also developed the software for visual monitoring of current status of each device (offline, online, first and last name of workers, name and ID of semi product etc.) in steel plate pressing machine plant. One of the projects was also development the tool for mechanical engineers who used it for accessing the technical drawings of final products and their parts in AutoCAD format or any other popular image format (BMP, JPG, etc.).

Technology used: SCO UNIX, IBM Informix, i4gl, ODBC, RS485, Microchip PIC, PIC Basic Pro, Borland Delphi 4. One of the most interesting parts about this job was connecting Excel pivot tables and Informix DB so the top managers were able to create fancy reports in Excel by themselves. To achieve that, I had to develop inhouse DWH because BI tools were not accessible for Informix DB at that time.

## Software Developer

### Freelancer

Dec. 1991 - Jan 2003. (12 years 2 months)

- Design and development of an application for creating school timetables for primary schools using SA algorithm
- Graphical representation of power states for 10/0.4KV, 35/10KV and 110/35KV energetic network in Electric power plant of Serbia (EPS), Smederevo branch

### Skills

Programing languages:

- DELPHI (7, 2007, XE4, XE7, 10, FireMonkey, VCL): over 15 years
- SQL, PL/SQL using Oracle and Allround Automations SQL Developer, SQL\*Plus and TOAD: over 10 years
- C#, MS Visual Studio 2010 (WCF, WPF): over 3 years
- Java using Oracle JDeveloper and IntelliJ IDE: over 3 years
- C/C++ using gcc: over 2 years

Databases:

- Oracle (10g, 11g, 12c): over 10 years
- PostgreSQL: over 6 years
- Informix i4gl: over 3 years
- MS SQL: Over 1 year

Source safe and version control:

- Visual Source Safe
- Git using Mercurial
- GitHub

Other technologies:

- REST/JSON, open-source PL/JSON: over 6 years
- SOAP/WSDL: over 6 years
- Windows services development: over 6 years
- Web services using Oracle Fusion Middleware (SOA Suite – BPEL for orchestrating business processes, OSB for service mediation and transformation): over 2 years
- JHipster, Angular, HTML, Typescript, Jasper, H2 database: over 2 years
- Oracle BI: over 1 year

Operating systems:

- MS Windows: over 30 years
- SCO UNIX, Rad Hat Linux: over 10 years

Trainings:

- Oracle Application Server 10g R2: Administration I, II
- Oracle SOA Suite 10g: Service Orchestration Ed 1
- SIMATIC ST7 – PRO 1
- Informatica ETL

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# Short about me

## Education

1996-1999

College of Electrical Engineering, Belgrade - Electrical engineer for computer science where I gained an Associate degree in Information technologies

1991-1996

Faculty of Electrical Engineering, Computer and Information technologies, Belgrade - 3<sup>rd</sup> year but never finished

1987-1991

Technical high school 'Milentije Popović', Smederevo - Mathematical and programming associate

## Summary

I have been a professional in the IT sector for more than 20 years and I have experience in various aspects of information technology which includes database design and development as well as application software development, engineering, consulting and team management. I gained this experience by working on various projects, mostly in the field of metal production and processing. In recent years, I have also been engaged in developing ERP solutions for the fashion industry and POS (Point of Sales) solutions.

I also have experience in implementing large ERP systems, which includes two years of participation in an international ERP system implementation team for the U.S. Steel Corporation HQ in Pittsburgh, USA.

As a teenager, I was interested in computer graphics, artificial intelligence, programming and everything else related to computers and technology, and in high school I participated in a summer camp at the Petnica Research Center as a talented programmer.

Currently, I am most interested in the development and implementation of real-time production monitoring systems, digital electronics and artificial intelligence (neural networks and algorithms for solving optimization NP-Hard problems) and new technologies like GoLang, Python, JHipster, Typescript and other web-based technologies which I am eager to learn.

After I graduated from high school in 1991, I enrolled in Faculty of Electrical Engineering in Belgrade, which I had to leave in 1996 at the 3<sup>rd</sup> year, after which I transferred to the College of Electrical Engineering in Belgrade, where I became advanced student in 1999 and where I graduated after mandatory military service and gained a college associate degree. I am passionate about technology and continuous learning.

## Languages

English – Fluent in writing, reading and speaking (10 years of education in school + 2 years in USA everyday conversation + 8 years in everyday conversation with Belgium colleagues).