Curriculum Vitae

Zoran Stepanoski

Electrical engineer for computer technology

📞 +381605183892

✉ zstepanoski@gmail.com

in https://www.linkedin.com/in/zoran-stepanoski-788567b/

🖥 https://zoranstepanoski-prof-website.fly.dev/

🏠 17. Oktobra 14/43, 11300 Smederevo, Republic of Serbia

Work experience

Technical Consultant/ Software Engineer
DataHub, Smederevo

October 2023. – current

- Development of a completely new application for windows and android mobile app from scratch for solving the problem of school timetables at the municipal level.

- ISB (Information system for safety at work):

- Maintaining existing functionalities and creating a new one of Web based applications. Development of functions, stored procedures, views, triggers and other development of new database functionalities. Creating ETL services in Python for integration between existing ERP databases with ISB databases.
- Level 2 technical support - Jira

Freelancer Software Engineer
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

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.

- Level 2 technical support - Jira

Software development engineer

2D Soft doo, Novi Sad
May 2021 - April 2022

Design, development, implementation and maintenance of POS solutions for catering businesses.

- 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)

- Level 2 technical support - inhouse ticketing software

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.

- Variety of different apps for Android and iOS smartphones.
- 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.

    o FashPlus ERP solution for clothing and footwear sales companies

    o FinadWin financial package

    o FashMaker ERP solution for production processes optimization
- Omnichannel
- Oracle BI, creating and optimizing SQL queries for reporting and business analytics purposes.
- Level 2 technical support - inhouse ticketing software

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.

- Cross compiler which was translating some custom-made language into C-like programming language.

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.

In this position I was responsible for checking the health of Oracle DB and application servers HW and SW.

- Canteen project (replacing paper vouchers with RFID)

- Level 1, 2 technical support - phone calls, Jira

ERP consultant

United States Steel Corporation HQ – Pittsburgh, USA

Feb. 2007 - Jan. 2009

I was a member of the international team as an ERP consultant.

- Integration of US Steel legacy systems with a new ERP system based exclusively on ORACLE technology (production monitoring and planning modules and financial modules).

- Level 2 technical support - Jira

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 in 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).

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. Designing and developing Smart digital counter with database connectivity over RS-485.

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

---

DIY Projects

Project: Personal Portfolio & AI Content Generator

A full-stack application featuring a secure, multi-tier cloud architecture.
- **Architecture**: Fly.io (DMZ) rerouting, Frontend (Angular/Typescript) and Backend (Spring Boot) on GCP; Database (PostgreSQL) on Supabase.
- **AI Integration:** Custom-built AI assistant using LLMs to generate tailored cover letters and motivational statements based on job description and my CV and skills set.
- **DevOps:** Automated CI/CD pipeline using GitHub Actions and Docker.

Project: Autonomous Vehicle Development Ecosystem

A professional robotics workflow encompassing simulation, hardware integration, and real-time control.
- **Components:**
  - **Desktop Simulator (Delphi):** Virtual environment for navigation logic development and Genetic Algorithm optimization.
  - **Mobile App (.NET MAUI):** Real-time telemetry monitoring and remote control via Android.
  - **Embedded Firmware (C++/ESP32):** Real-time "brain" using FreeRTOS for sensor fusion (LiDAR, IMU, GPS) via Extended Kalman Filter (EKF).
- **Key Achievement:** Implemented Dynamic Potential Field navigation with 4 dimensional RL Q-Table.

Project: Custom Smart Surveillance System

An open-source alternative to cloud-based AI monitoring.
Tech: Python, YOLOv8, dlib, and OpenCV.
Functionality: Real-time human detection and facial recognition. Designed to be CPU-bound for testing but architected for NVIDIA GPU (CUDA) acceleration.

Project: School Timetable Scheduler (Municipality Level)

An enterprise-grade application solving NP-hard combinatorial scheduling problems.
Core Logic: Implements Simulated Annealing (SA) to generate schedules for interconnected schools sharing teachers.
Hybrid AI: Integrates Google Gemini Pro for a final refinement step, improving qualitative pedagogical aspects of the generated schedules.
Features: Asynchronous job management with real-time progress monitoring (Temperature, Fitness Score) via an Angular dashboard.

Skills

Programing languages:

- DELPHI (7, 2007, XE4, XE7, 10, FireMonkey, VCL): over 15 years
- PL/SQL, PL/pgSQL, T-SQL: 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 Server: Over 1 year

Source safe and version control:

- Visual Source Safe
- Mercurial
- GitHub

Other technologies:

- REST/JSON, open-source PL/JSON: over 6 years
- SOAP/WSDL: over 6 years
- CI/CD, TCP/IP, MQTT, RabbitMQ, RS-232, RS-485, ESP32 MCU, Arduino Uno/Mega MCU, Microchip PIC 16F877, Zilog Z80 CPU assembler 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

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 - 3rd year but never finished

1987-1991

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

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).

More about me and details about projects please visit my Website - https://zoranstepanoski-prof-website.fly.dev/